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THE

CAMBRIDGE MEDIEVAL HISTORY

PLANNED BY THE LATE

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REGIUS PROFESSOR OF MODERN HISTORY

EDITED BY

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VOLUME VII

DECLINE OF EMPIRE AND PAPACY

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CAMBRIDGE

AT THE UNIVERSITY PRESS

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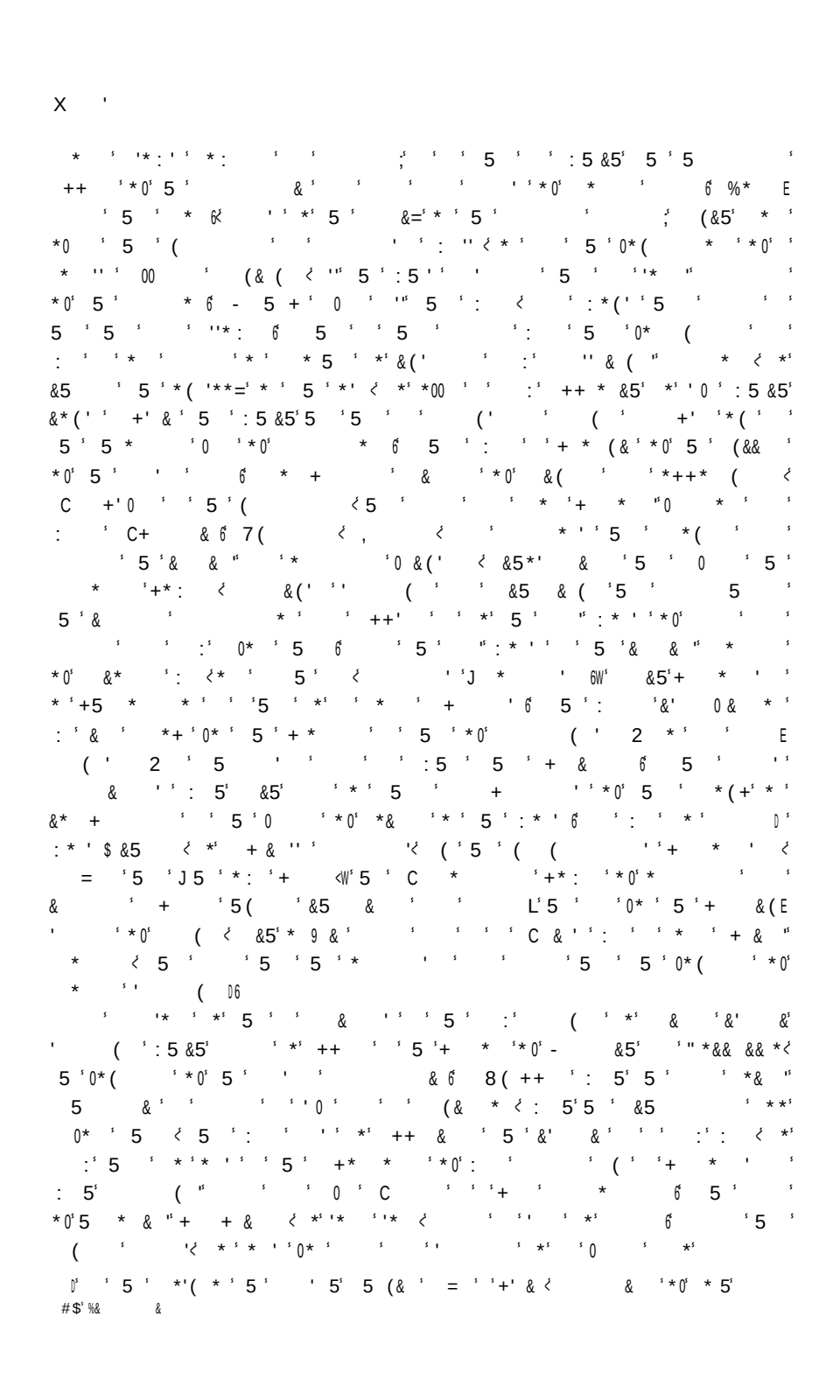

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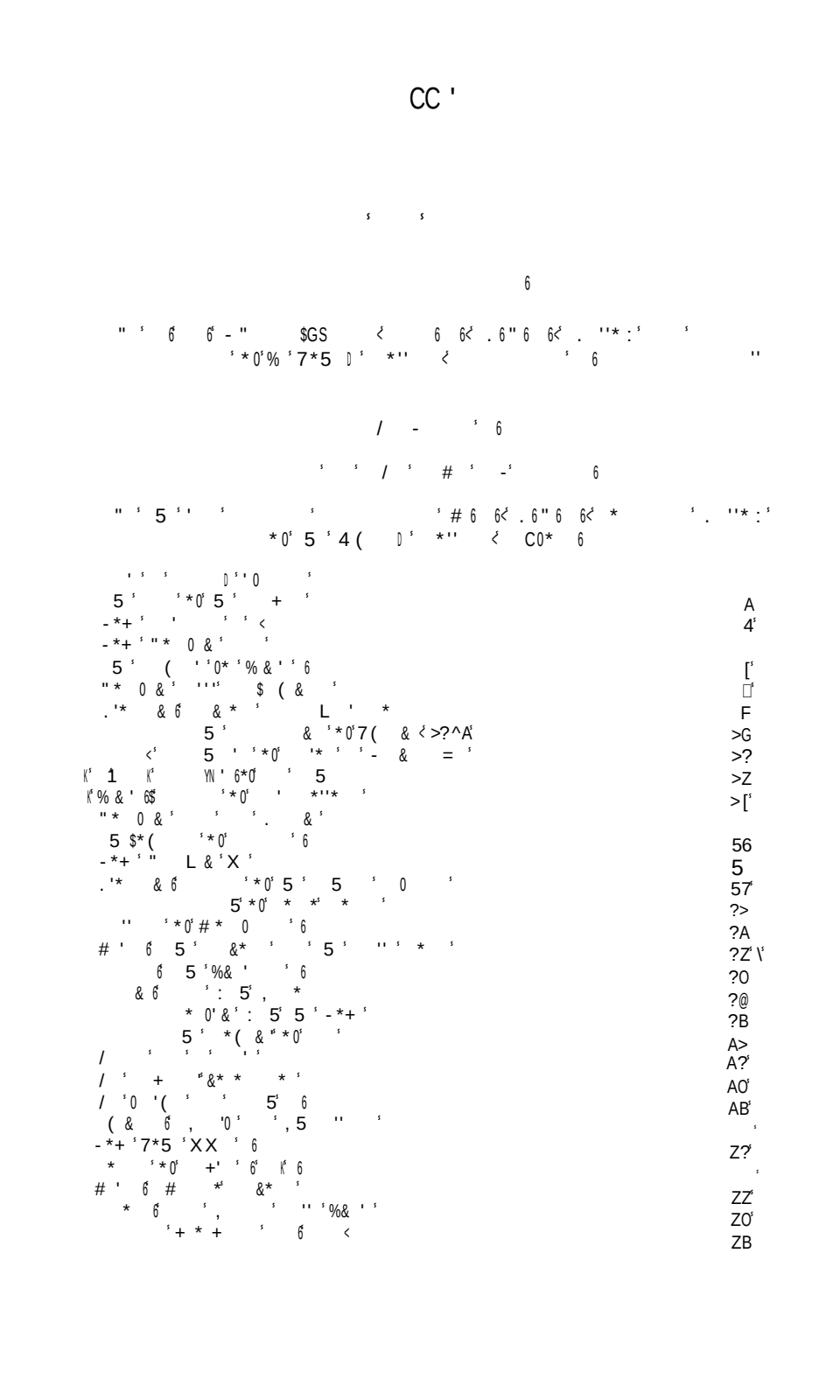

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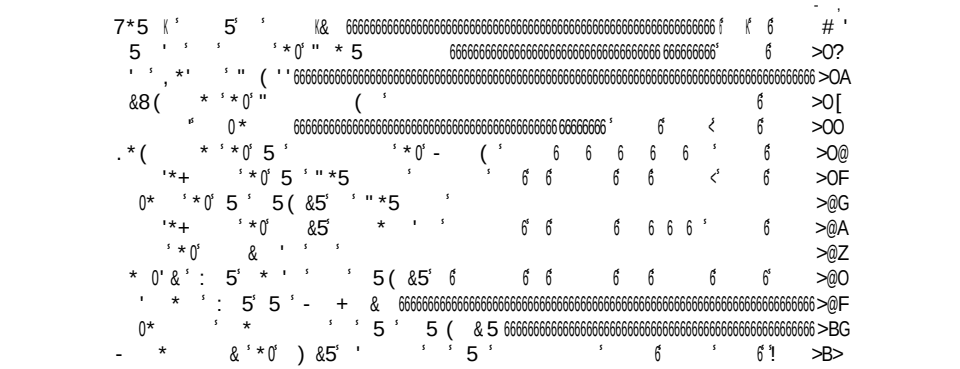

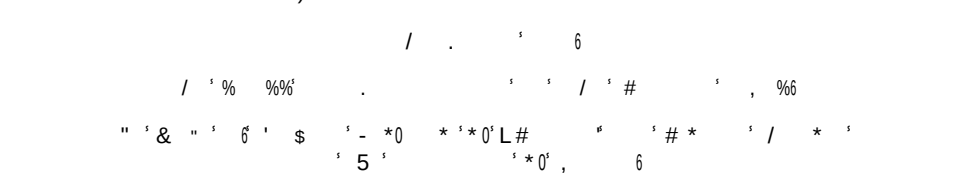

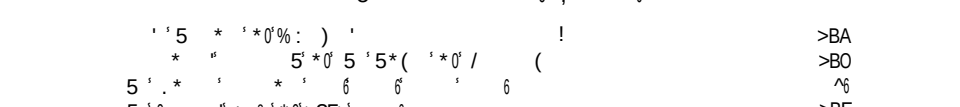

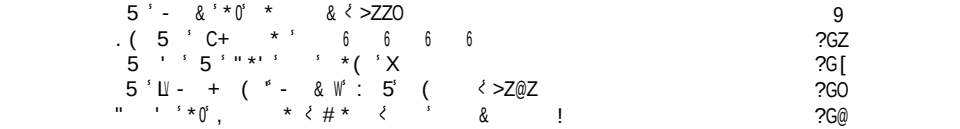

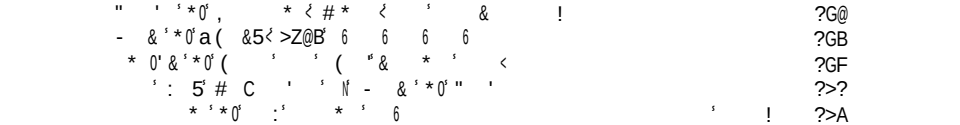

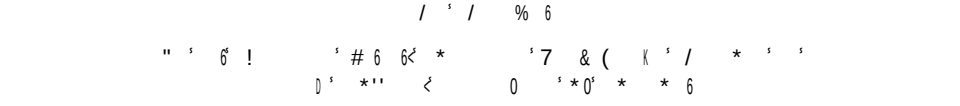

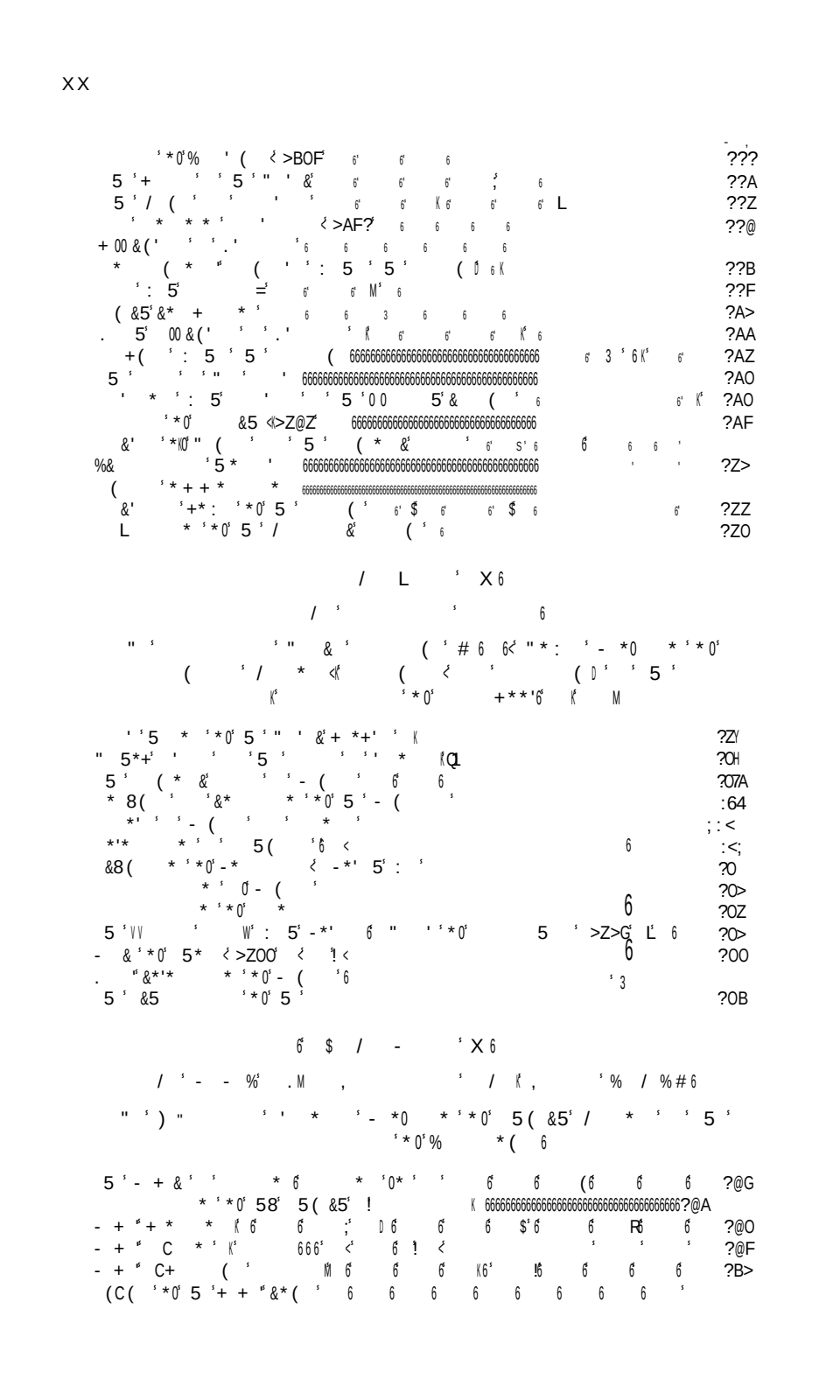

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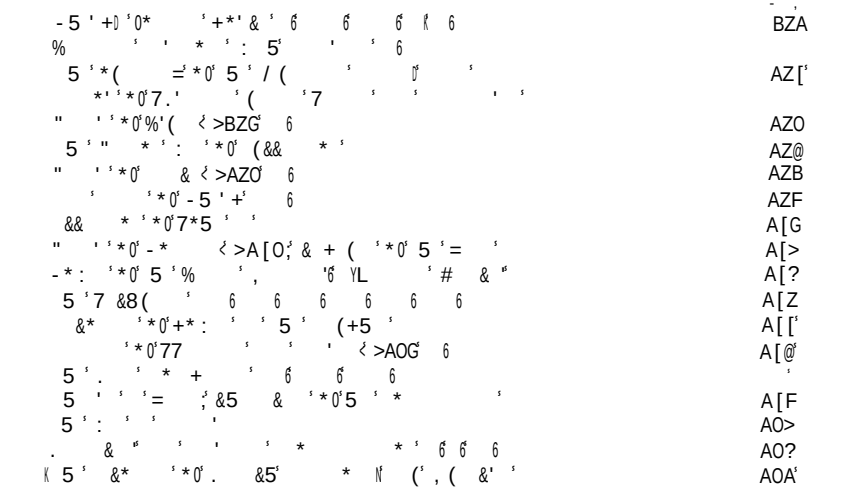

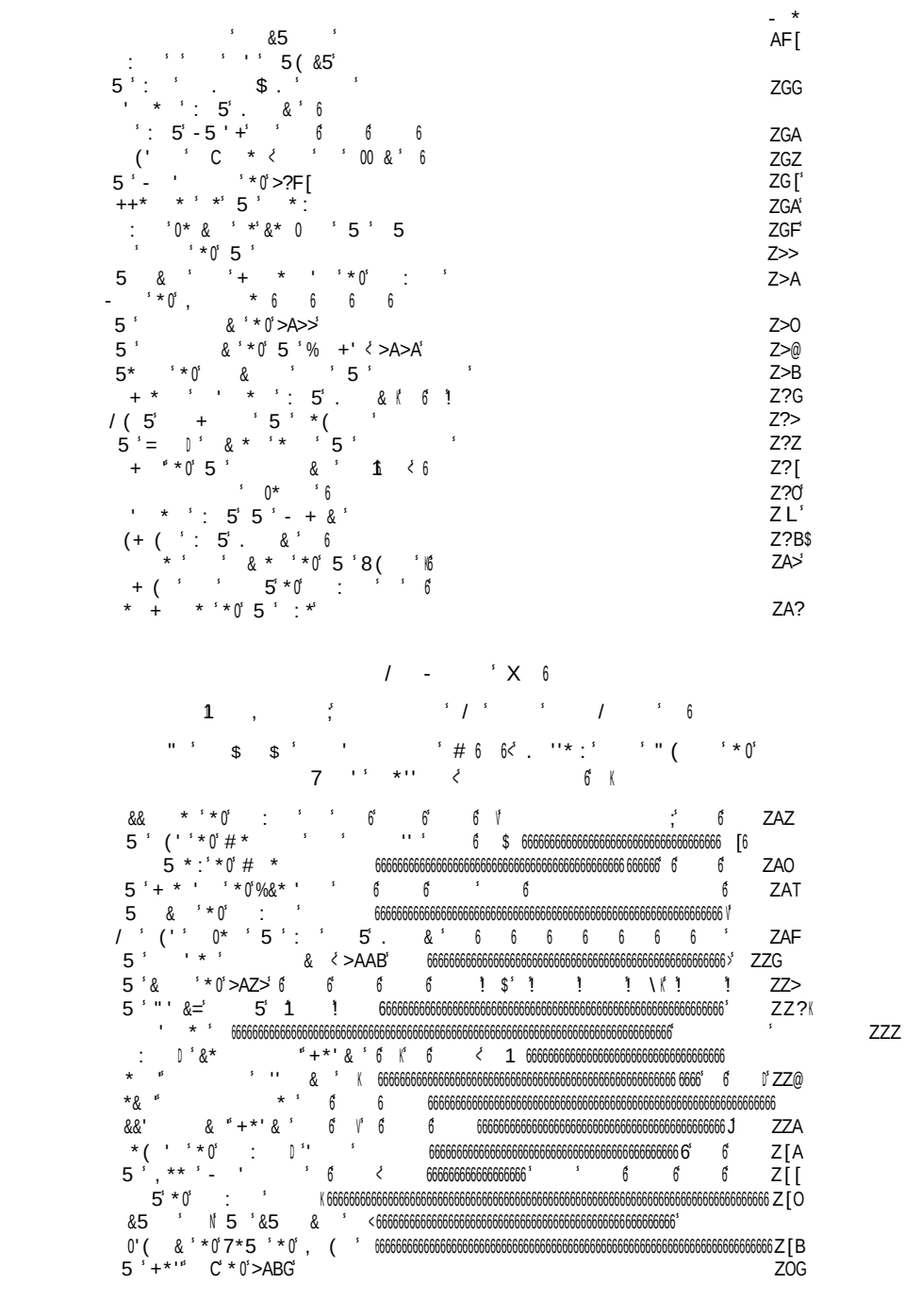

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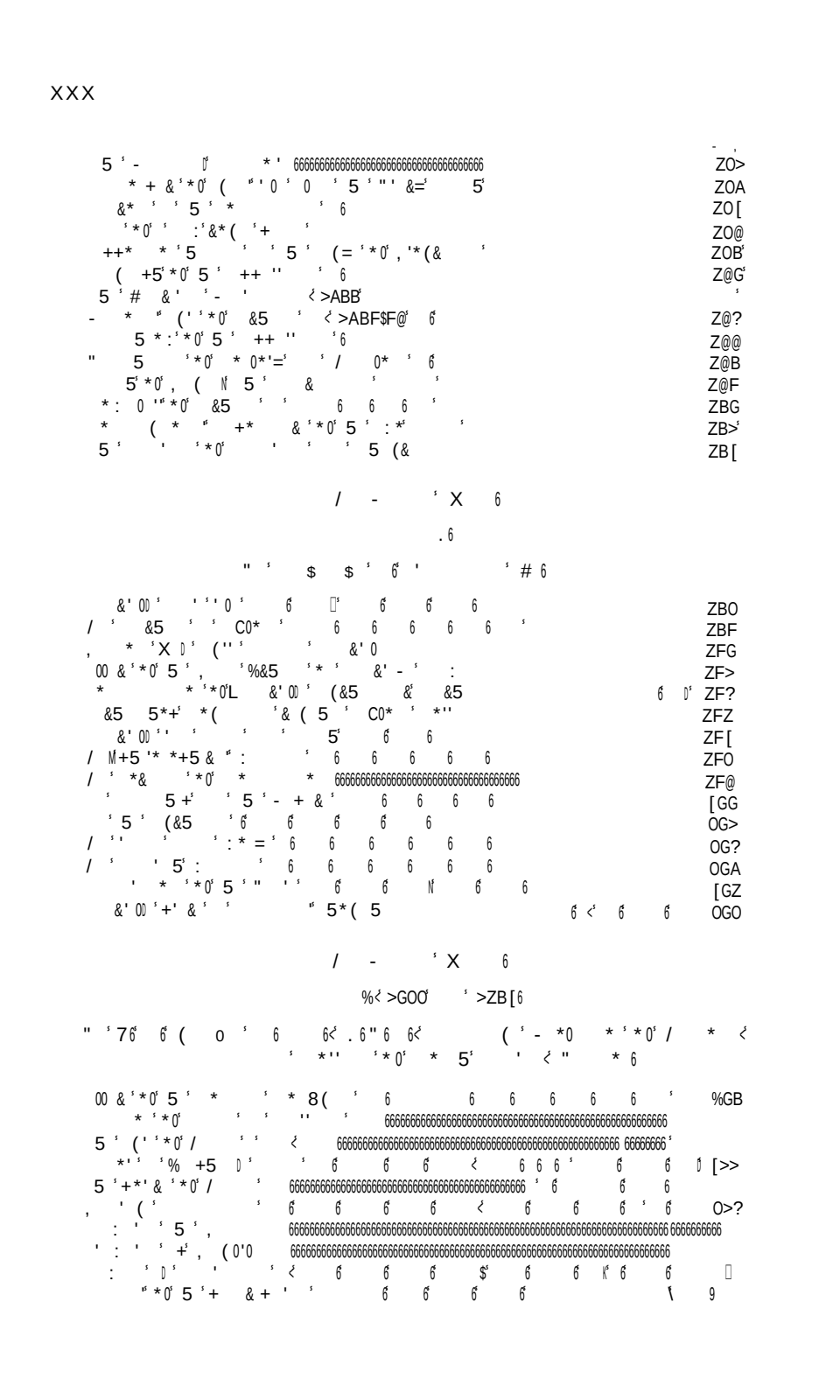

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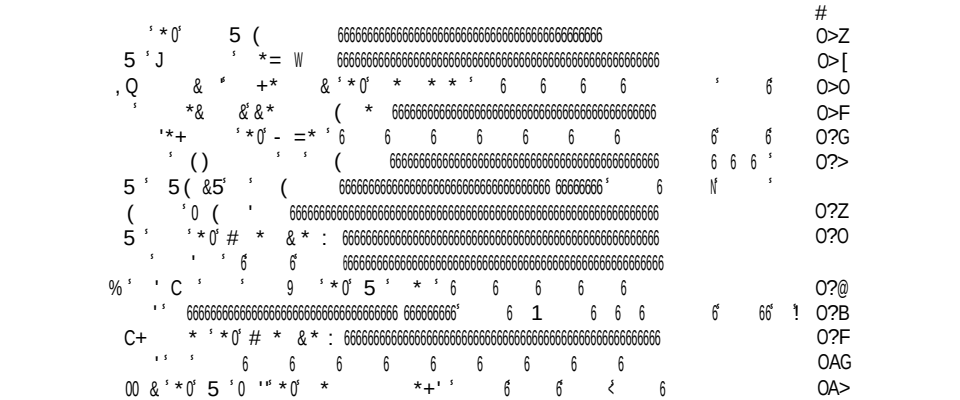

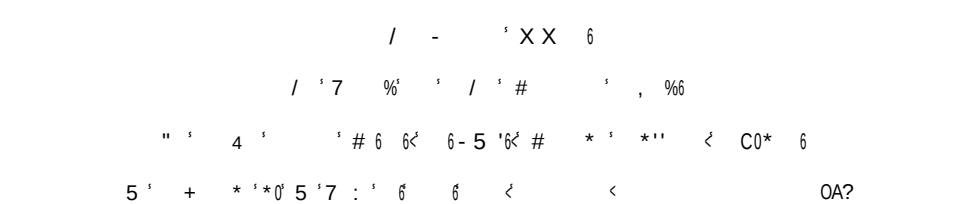

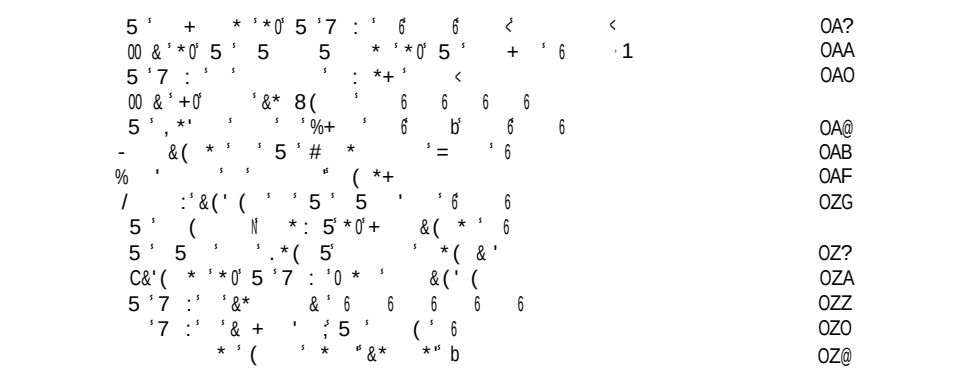

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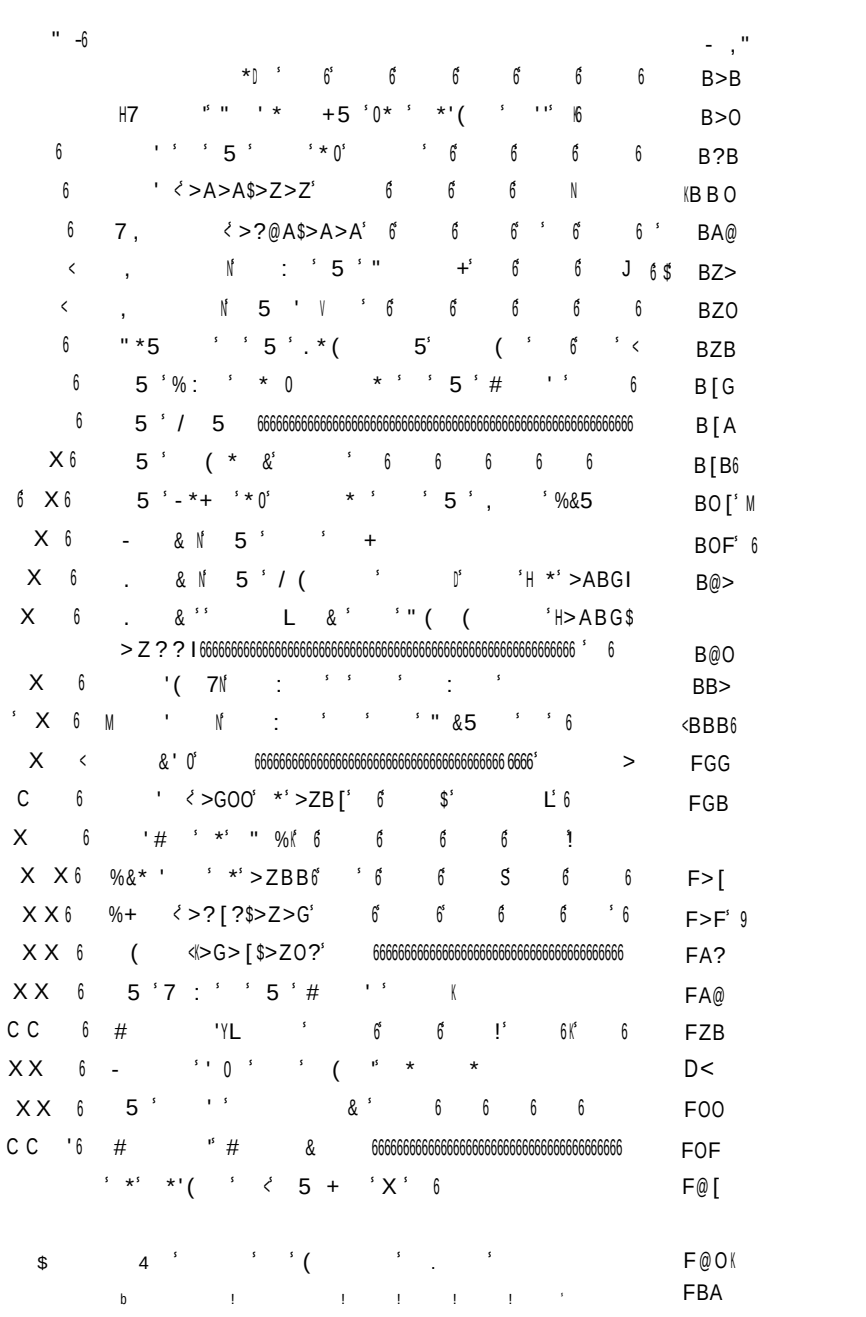

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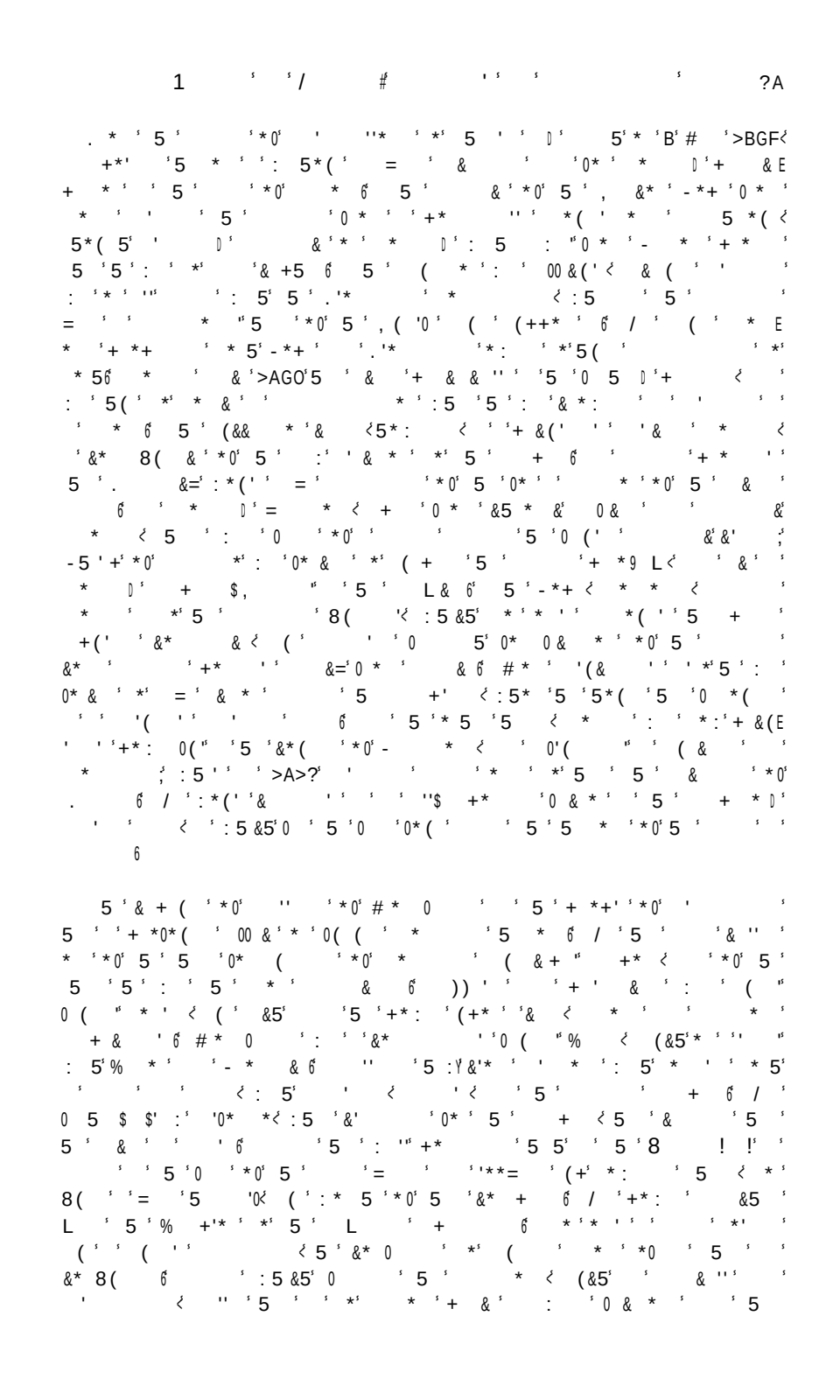

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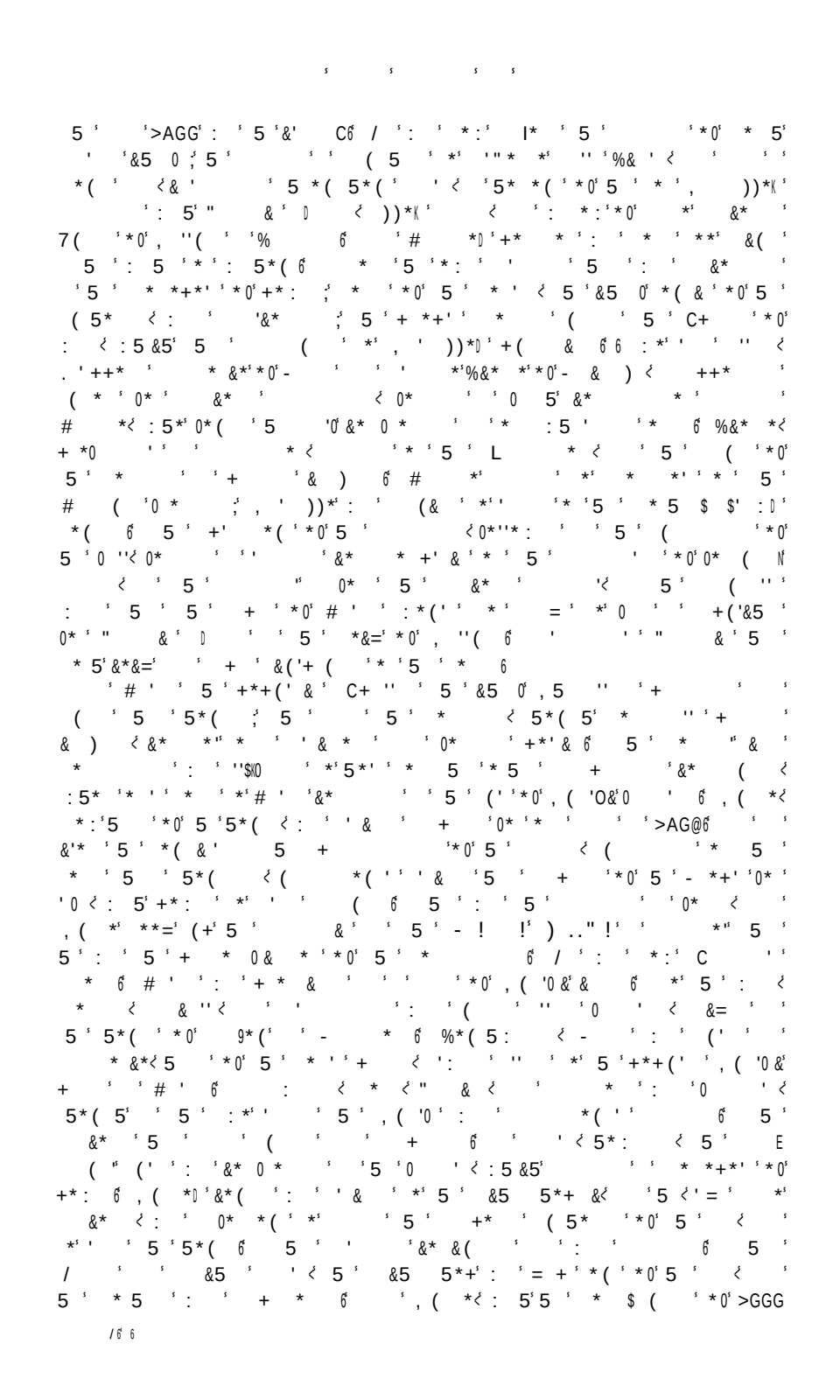

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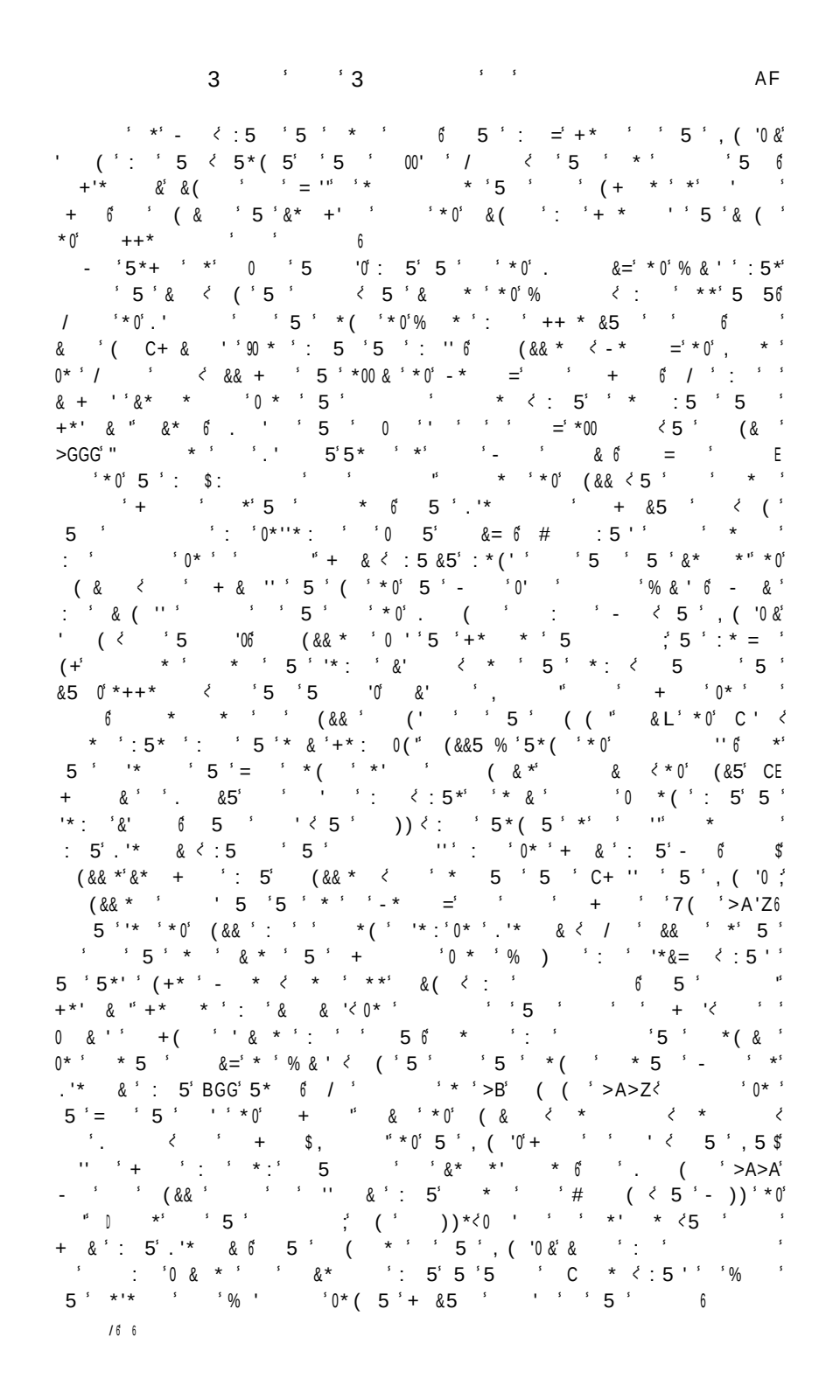

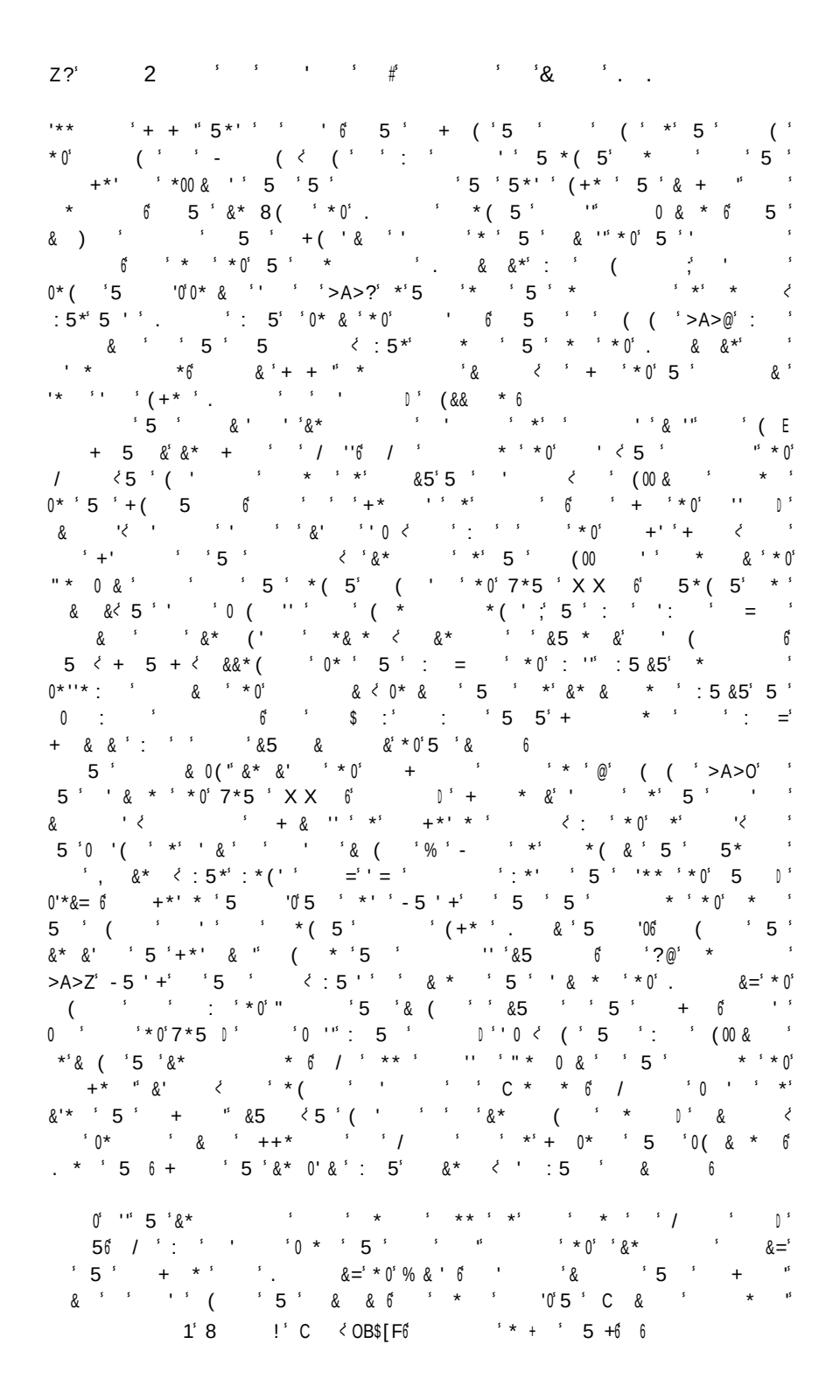

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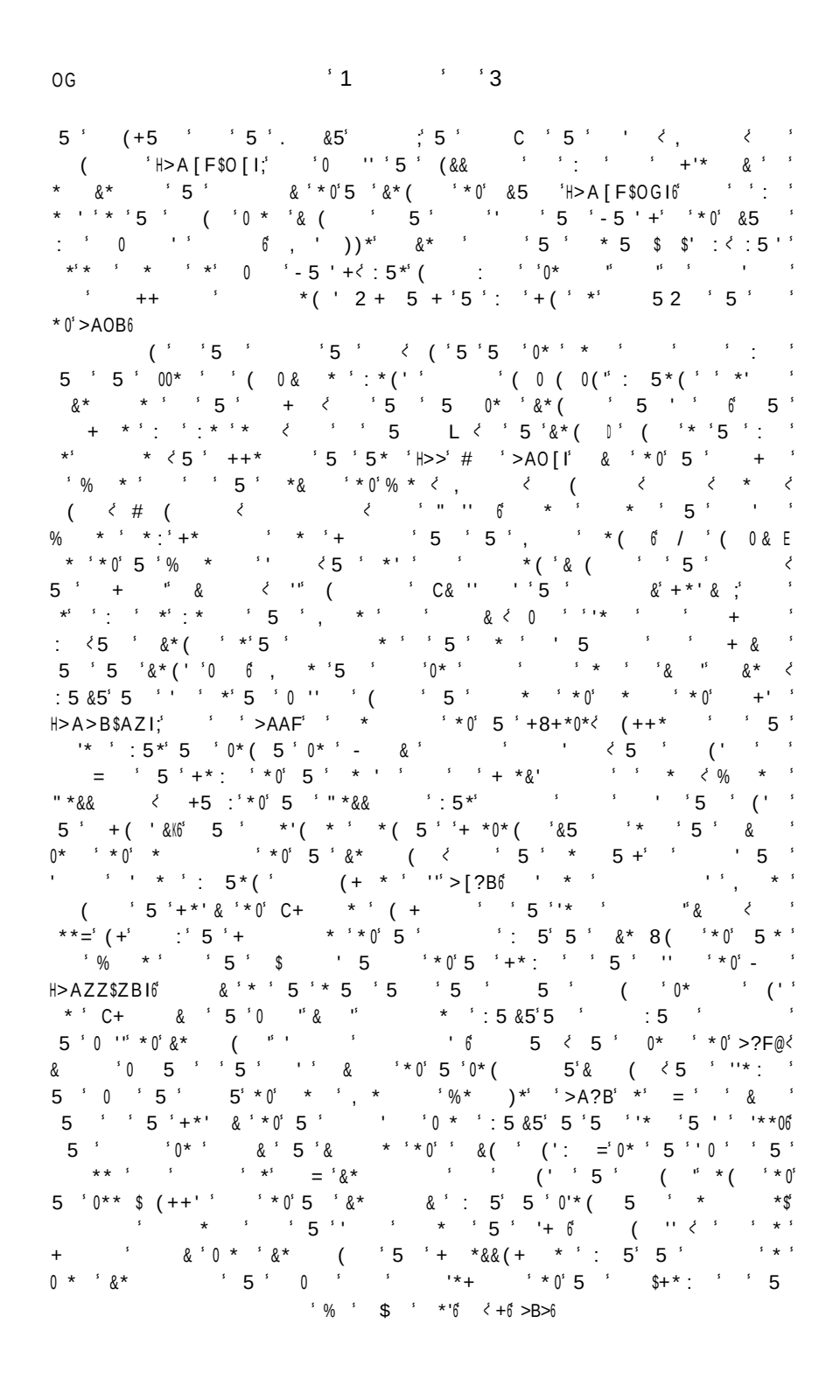

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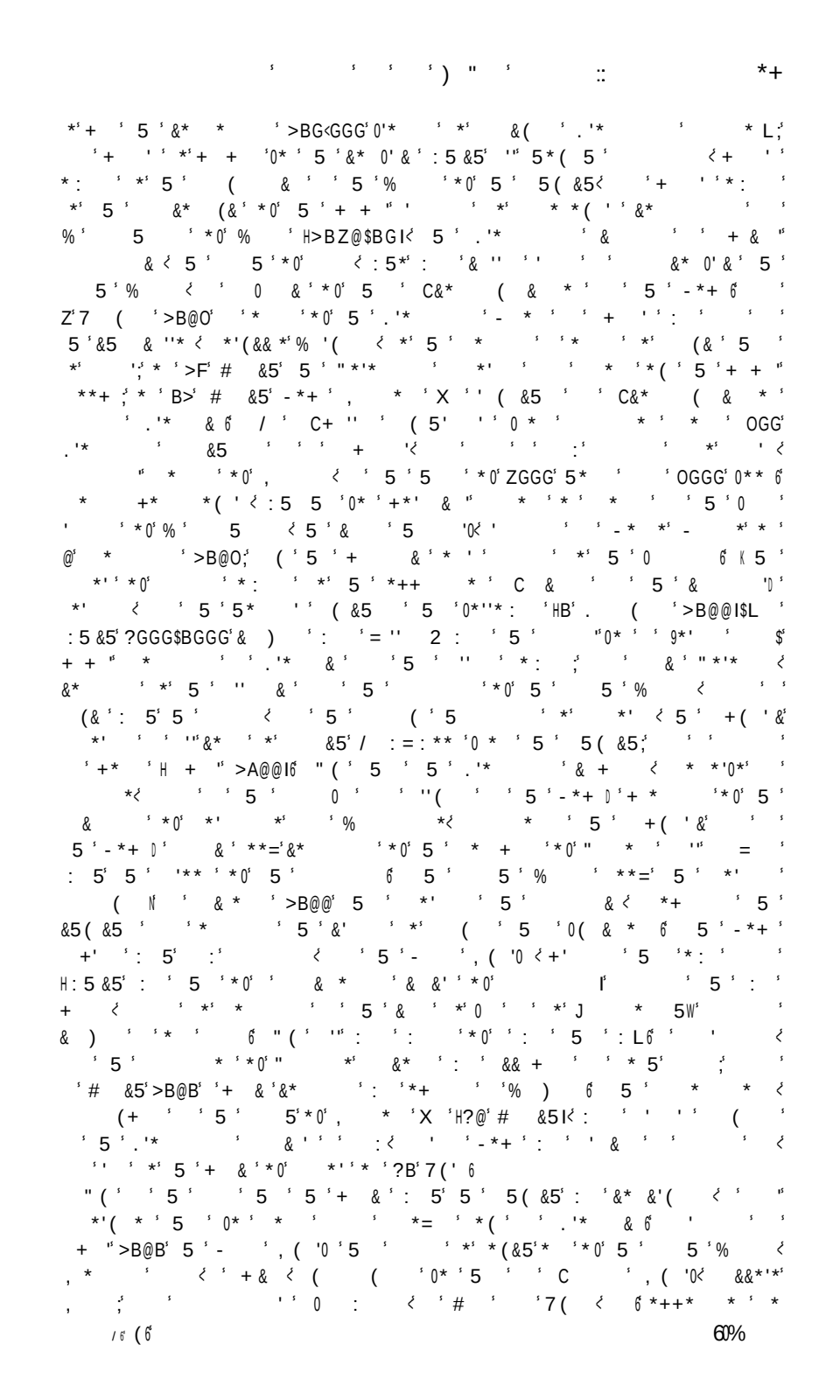

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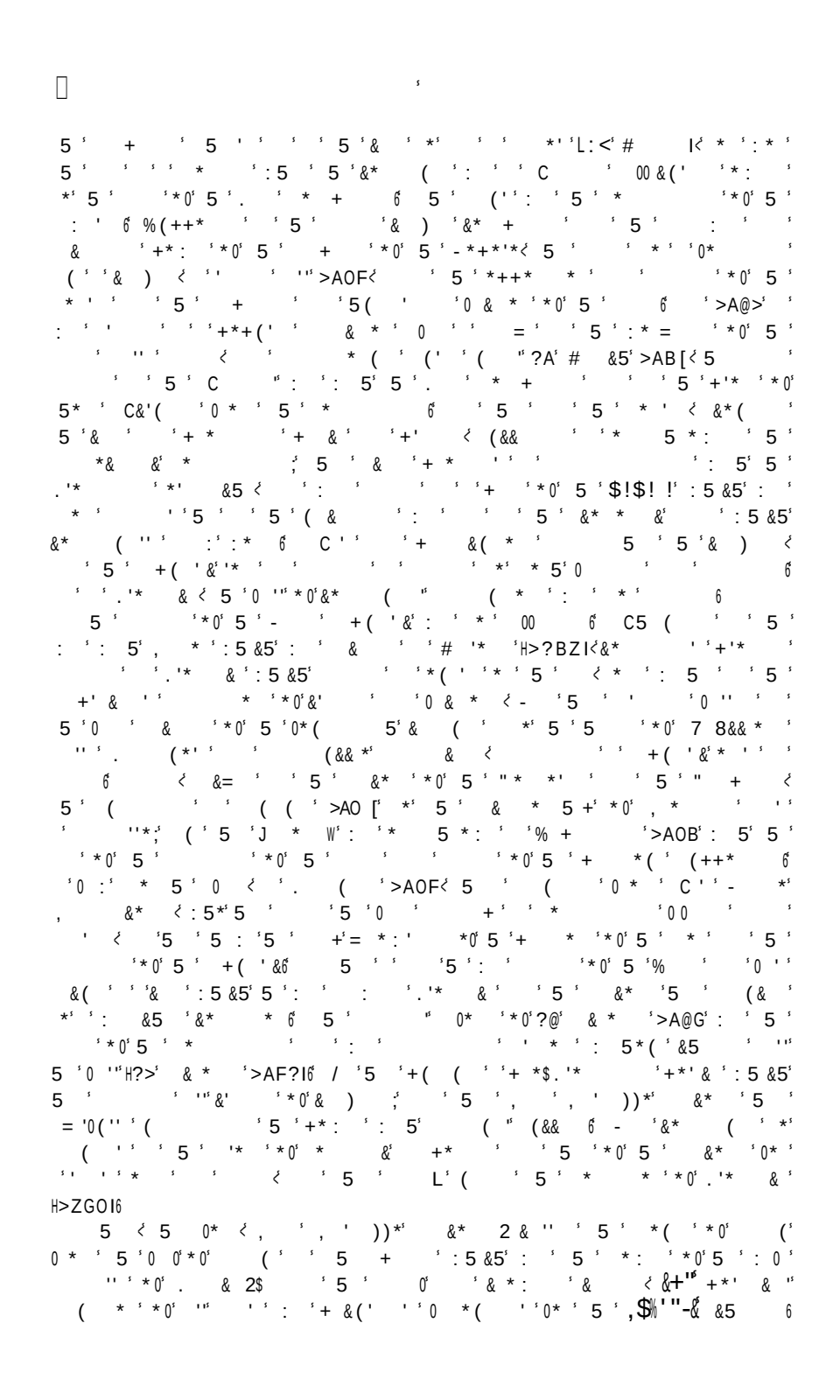

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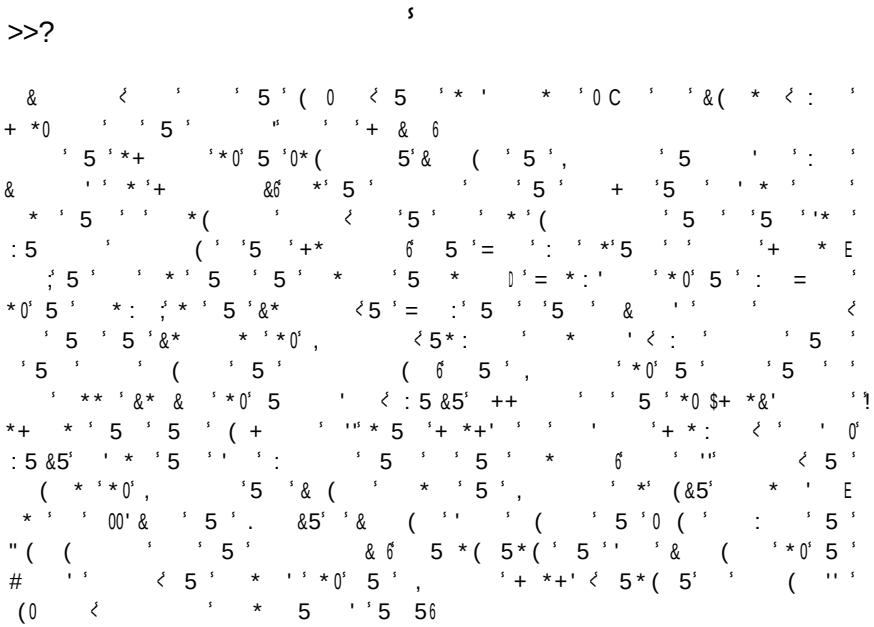

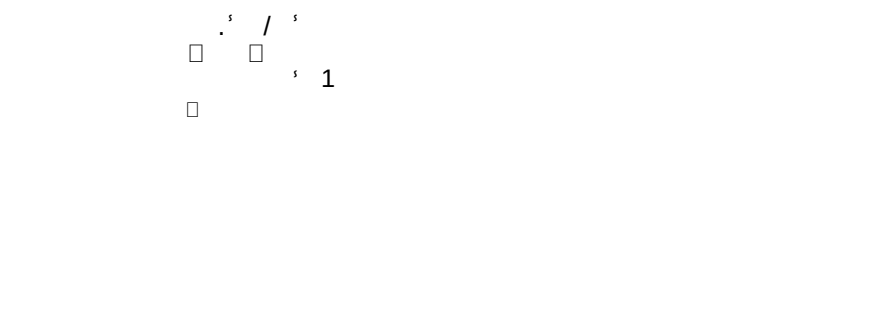

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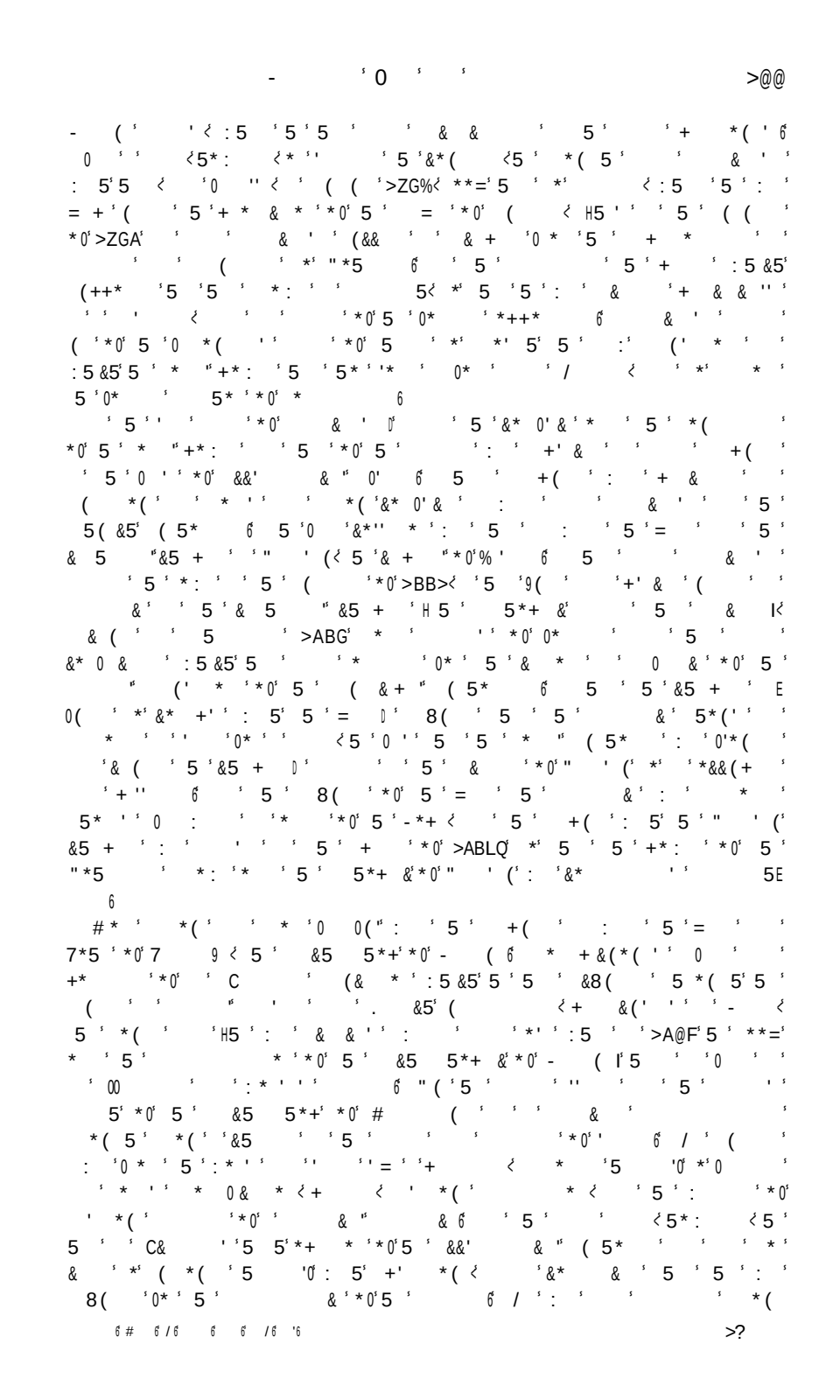

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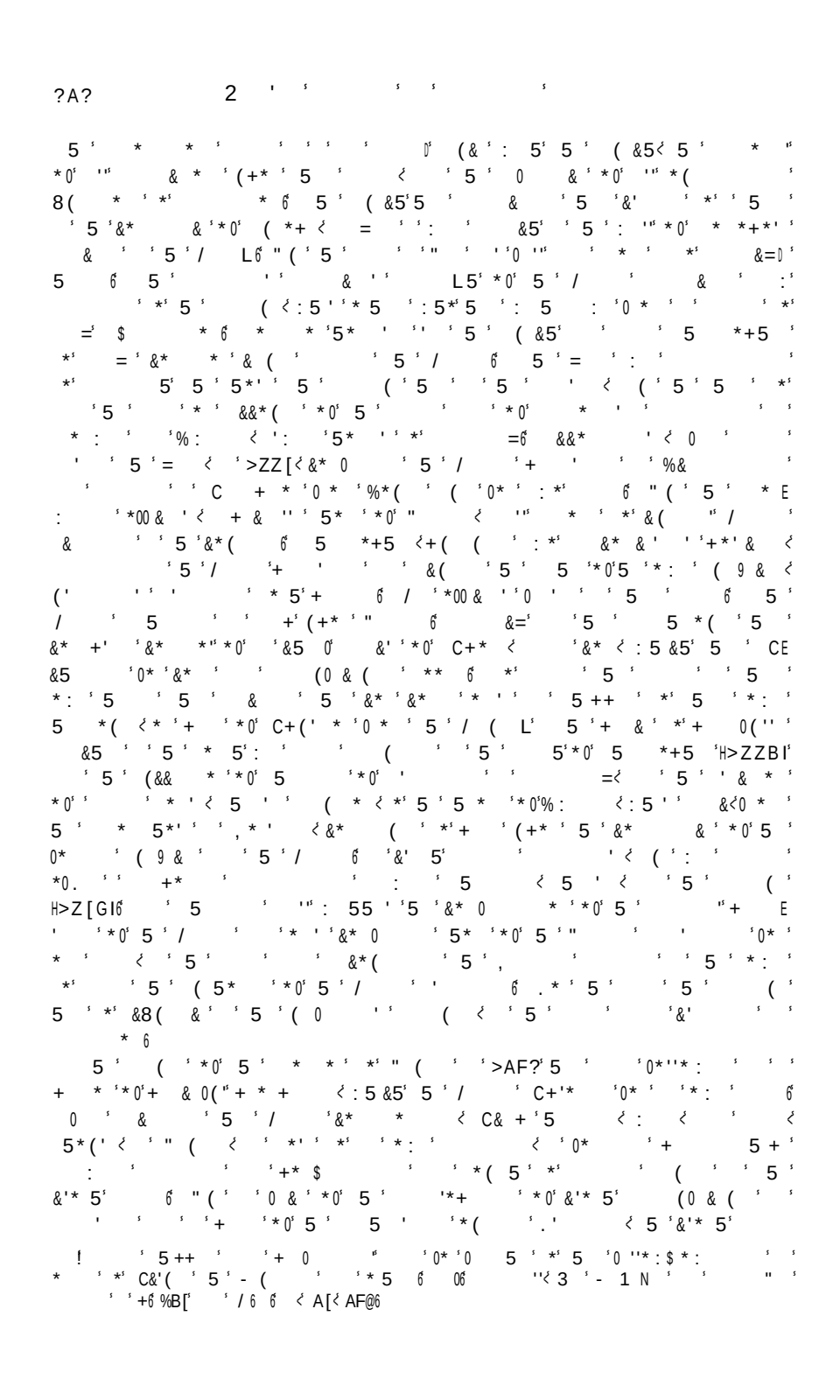

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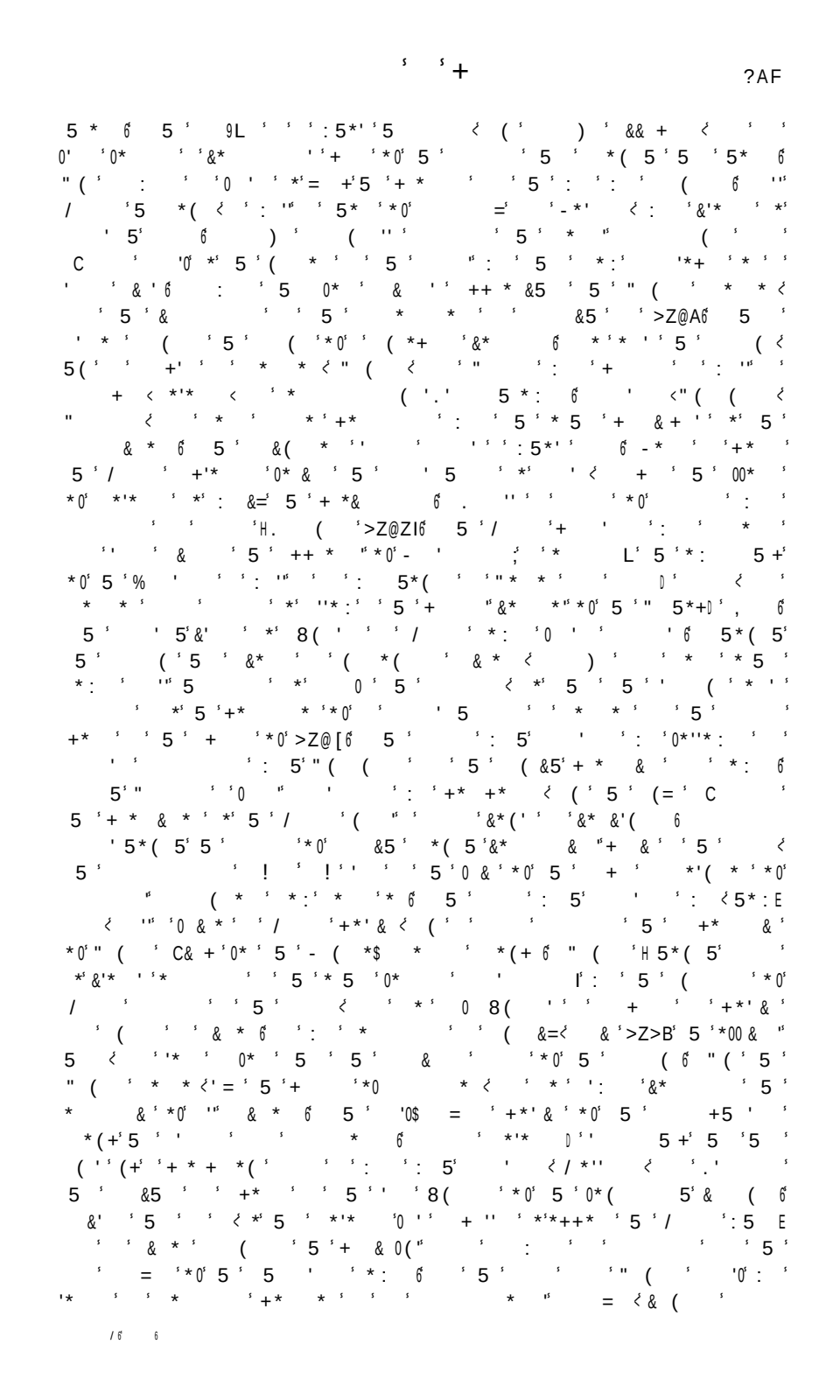

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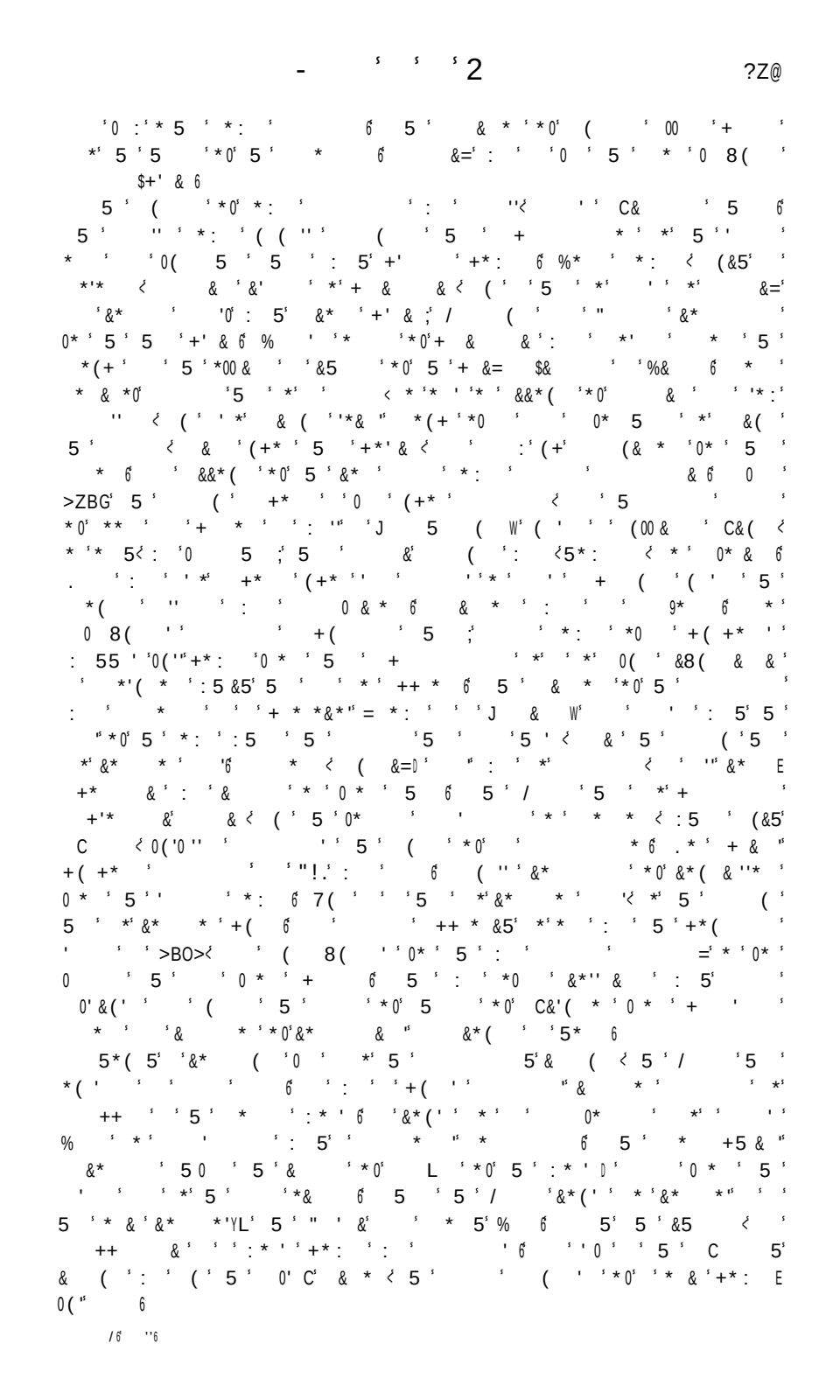

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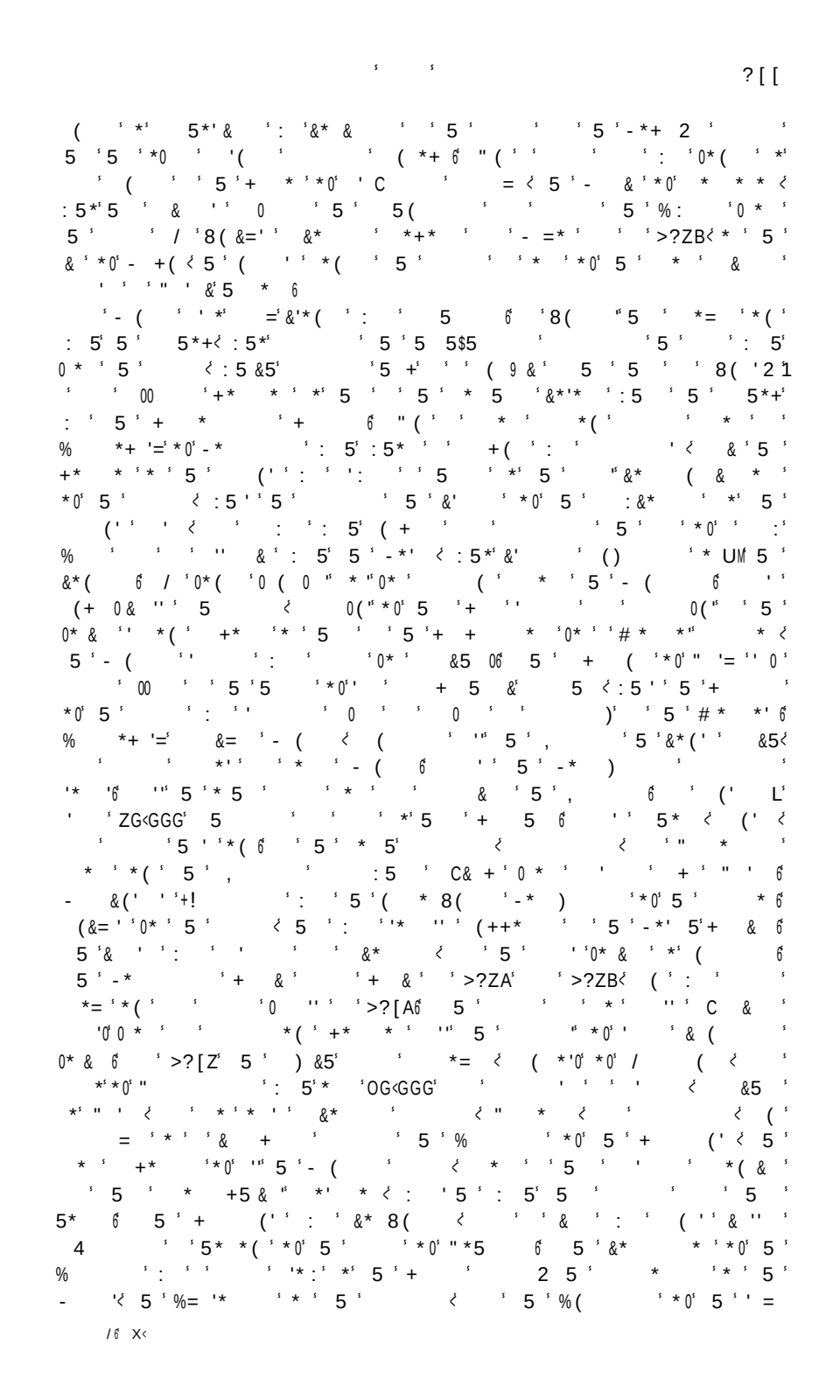

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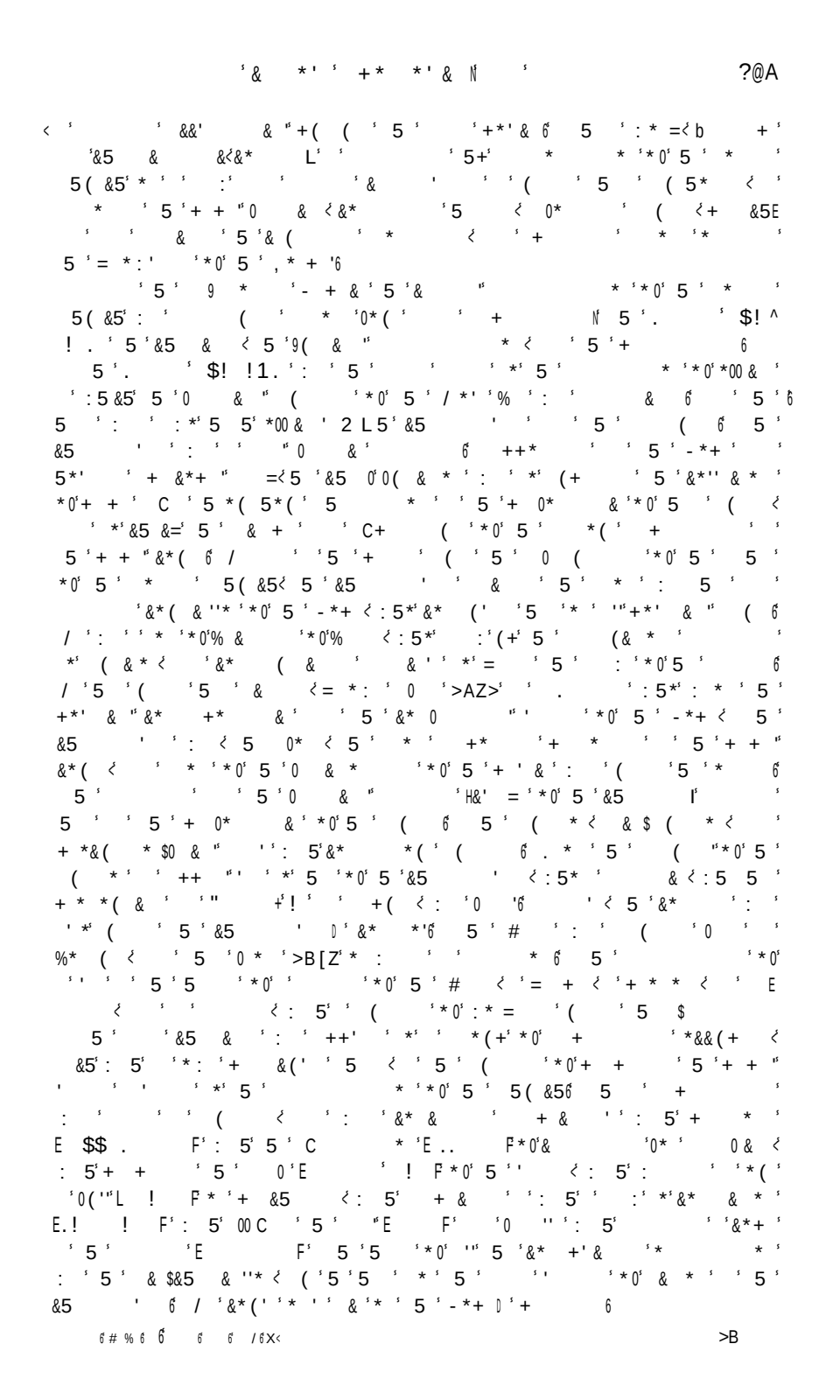

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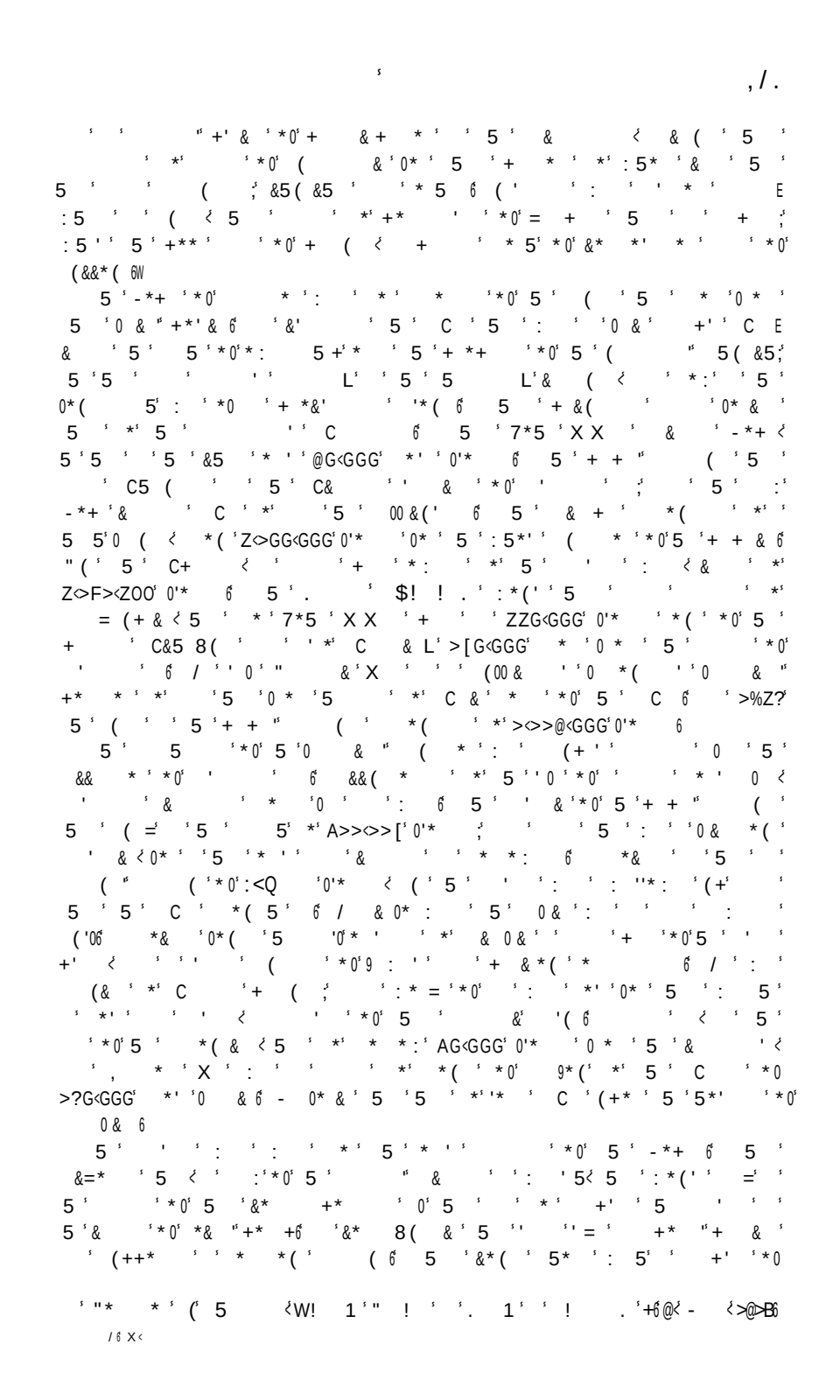

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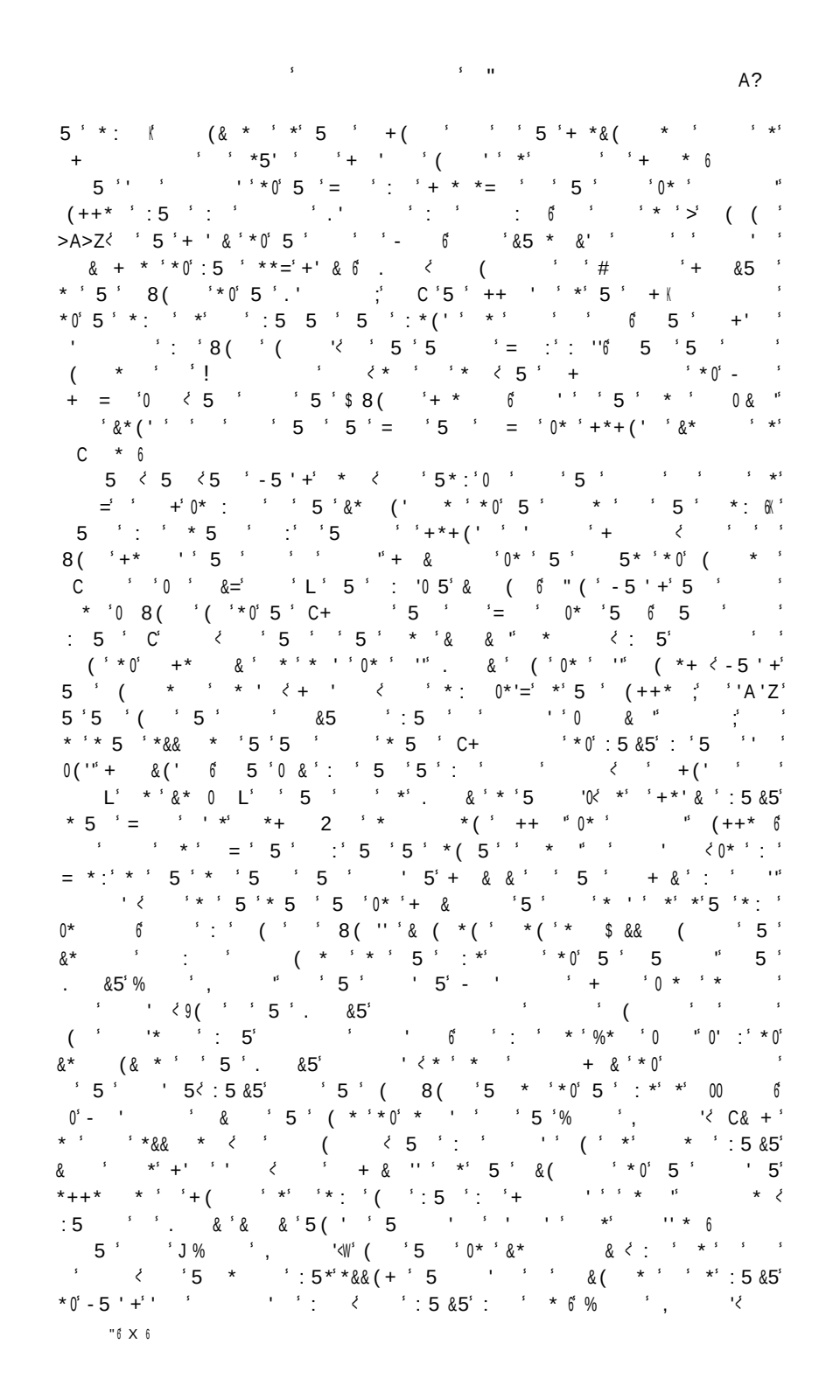

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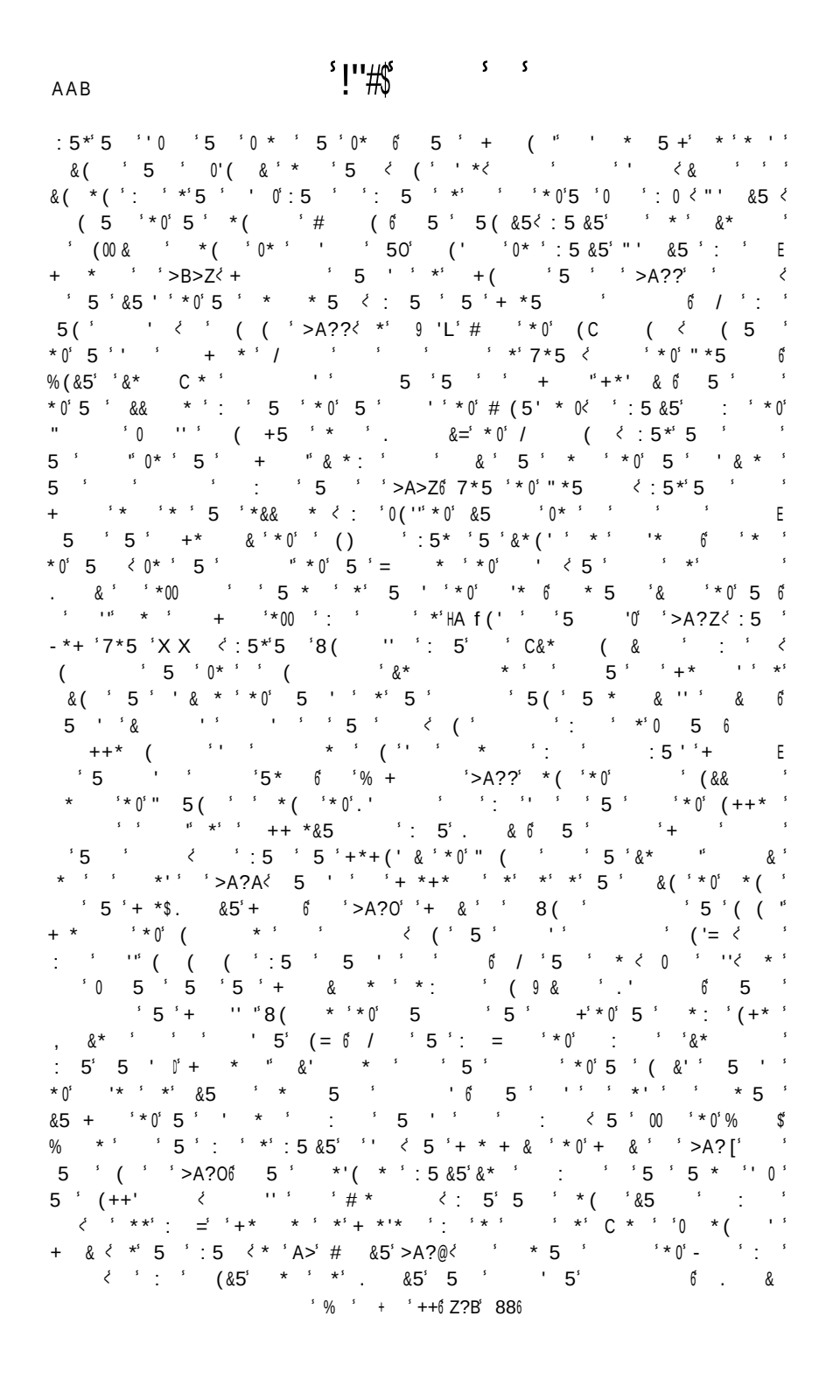

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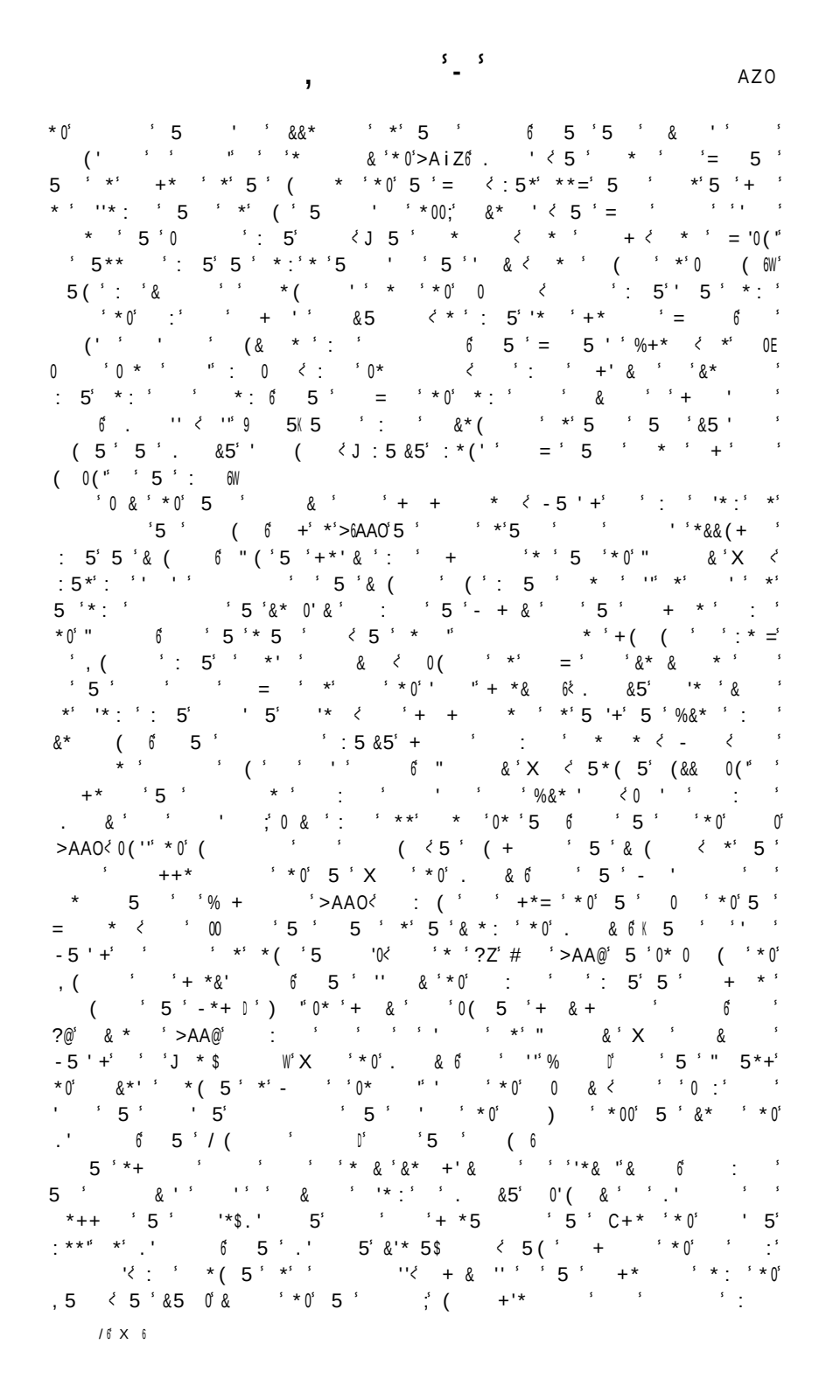

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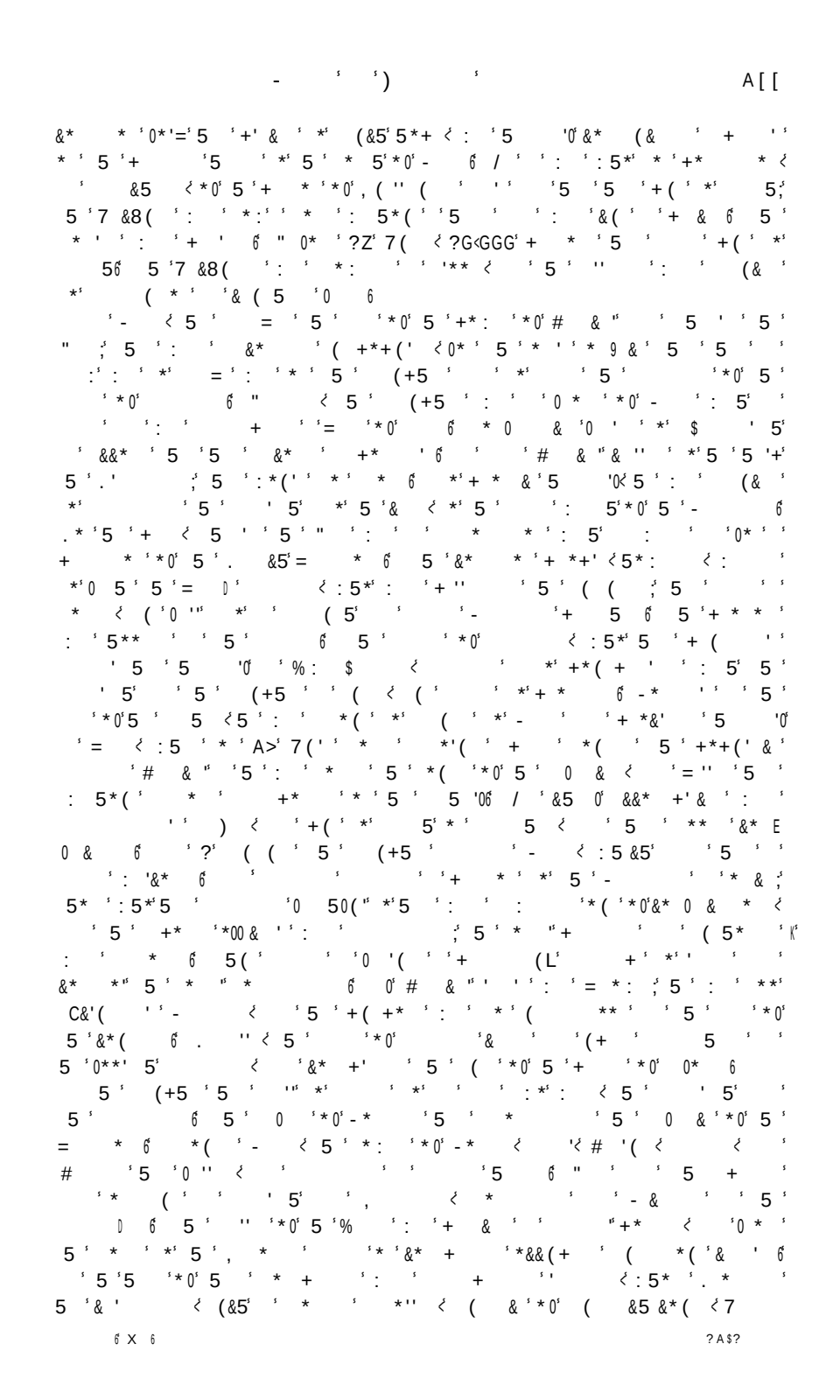

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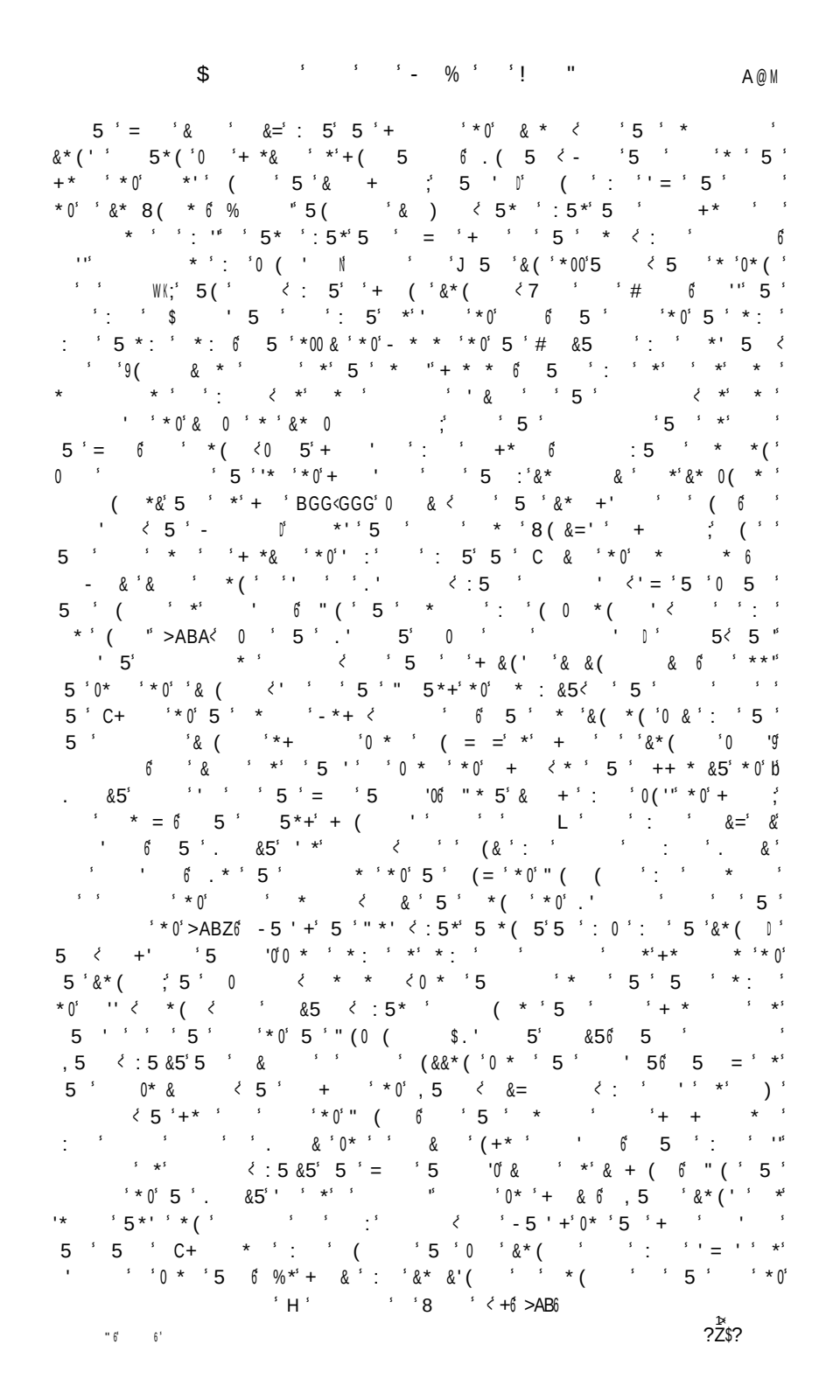

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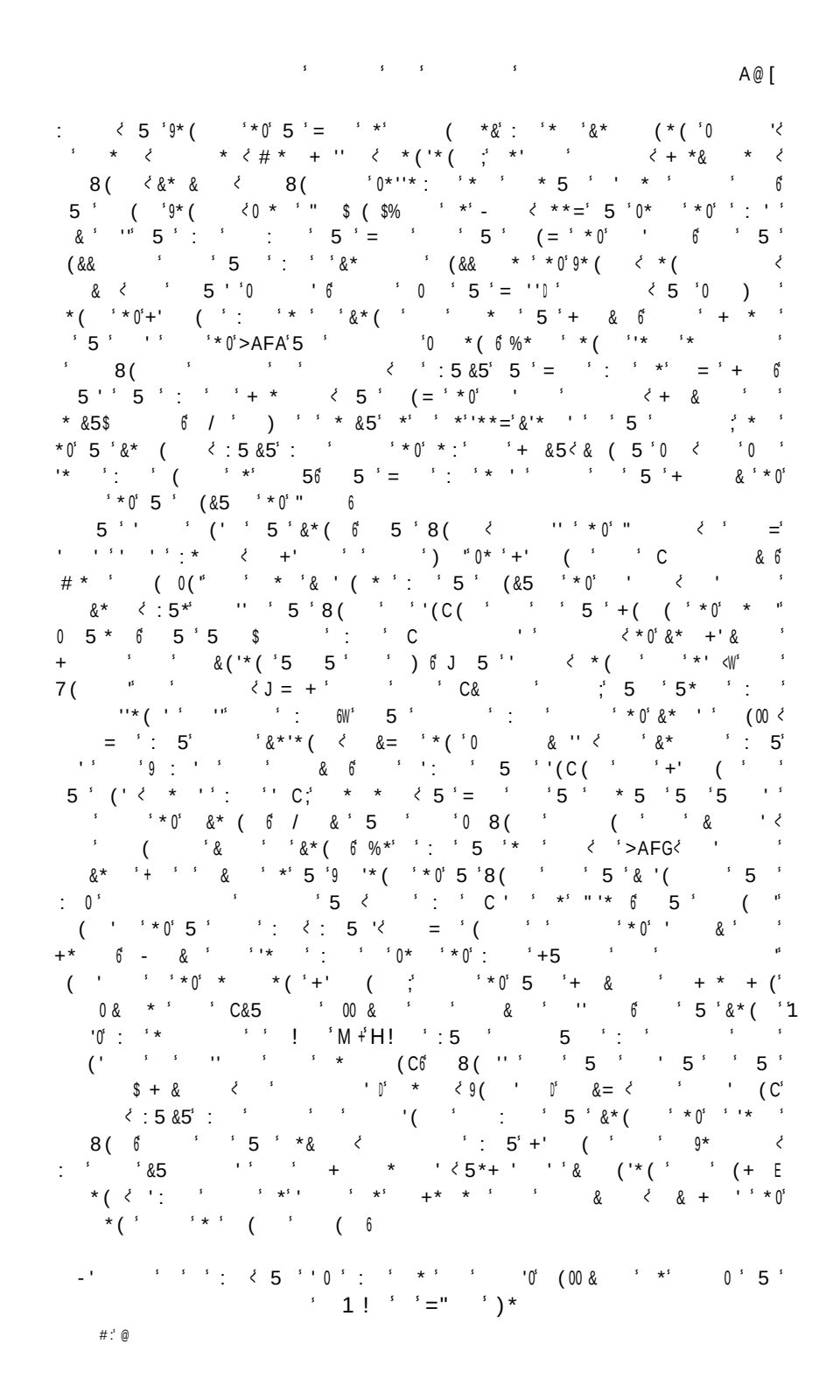

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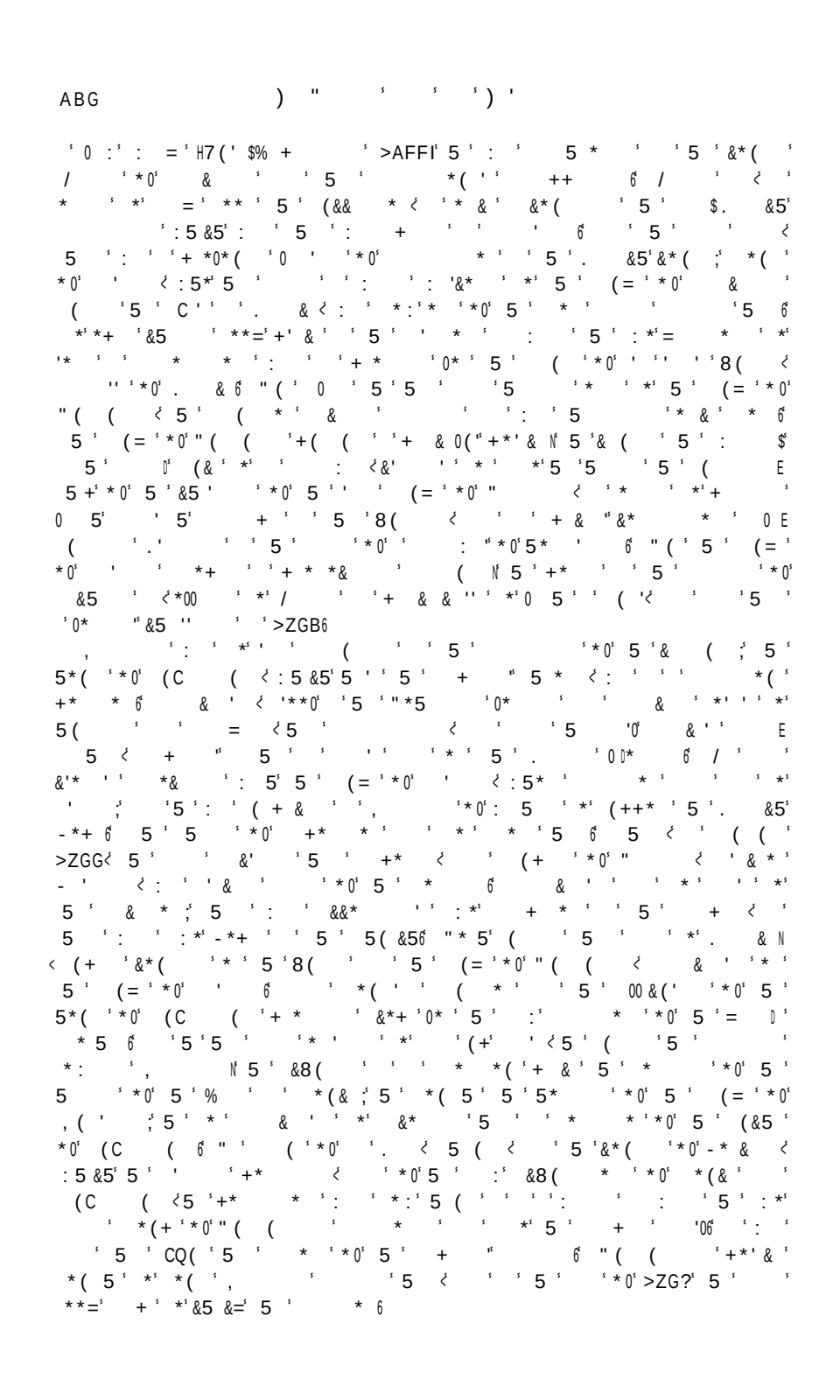

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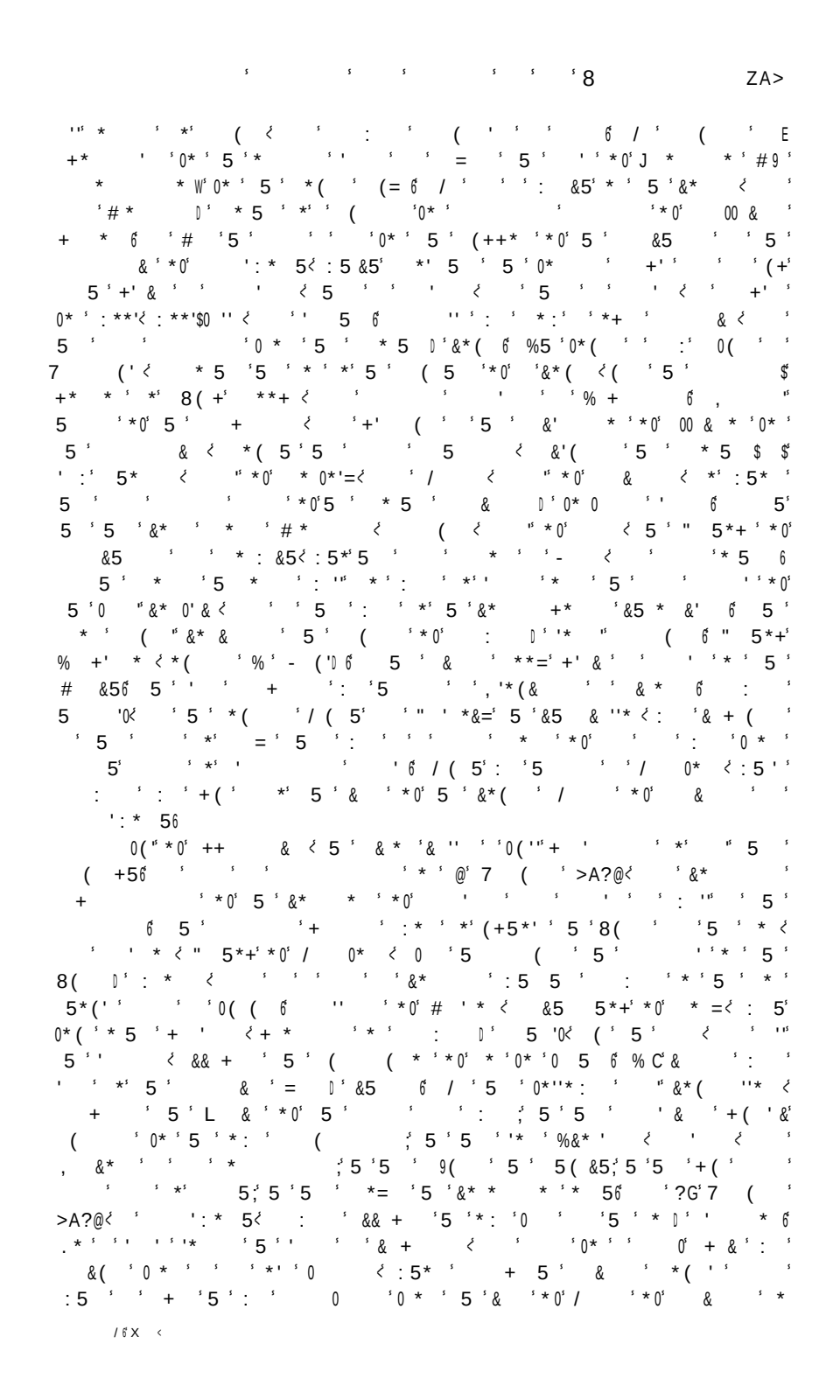

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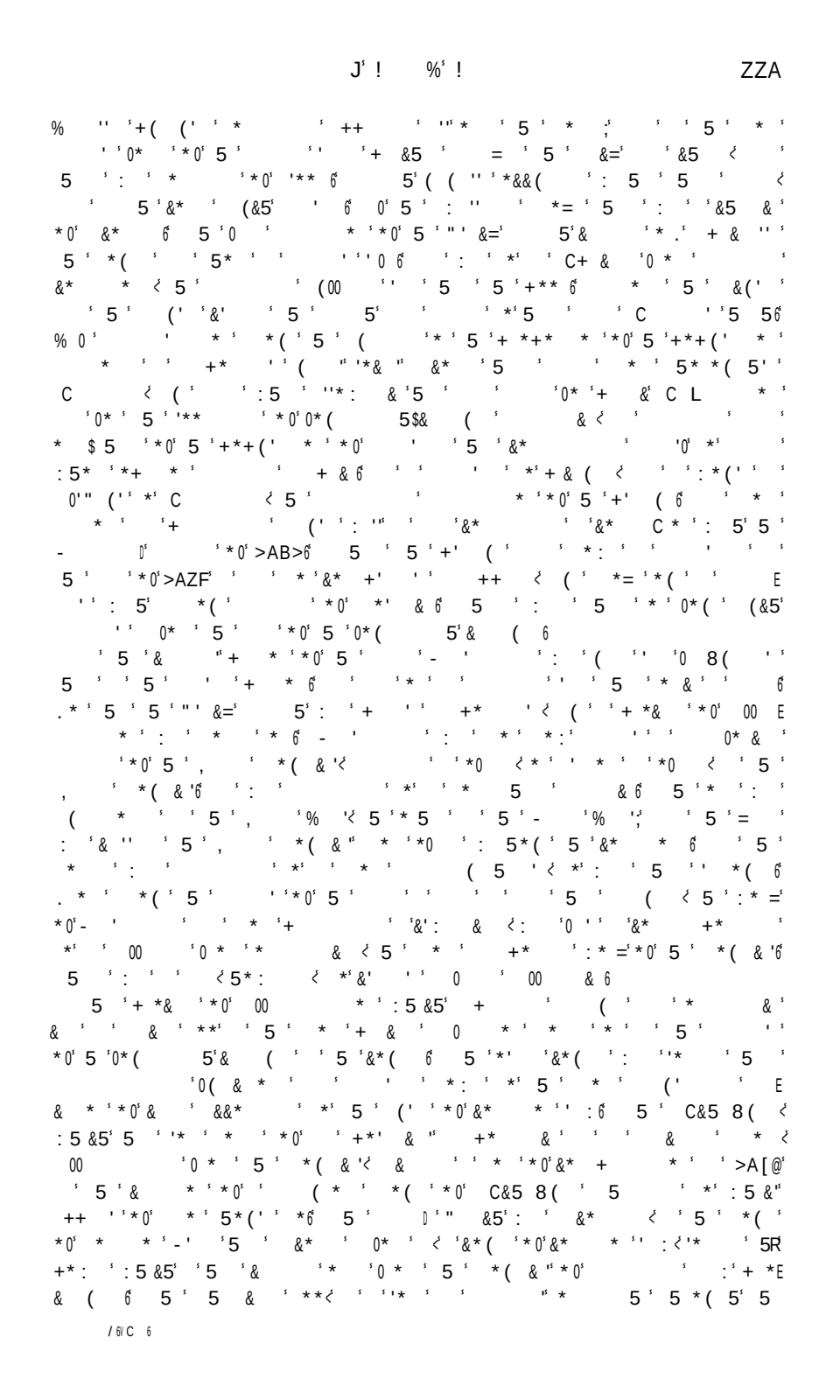

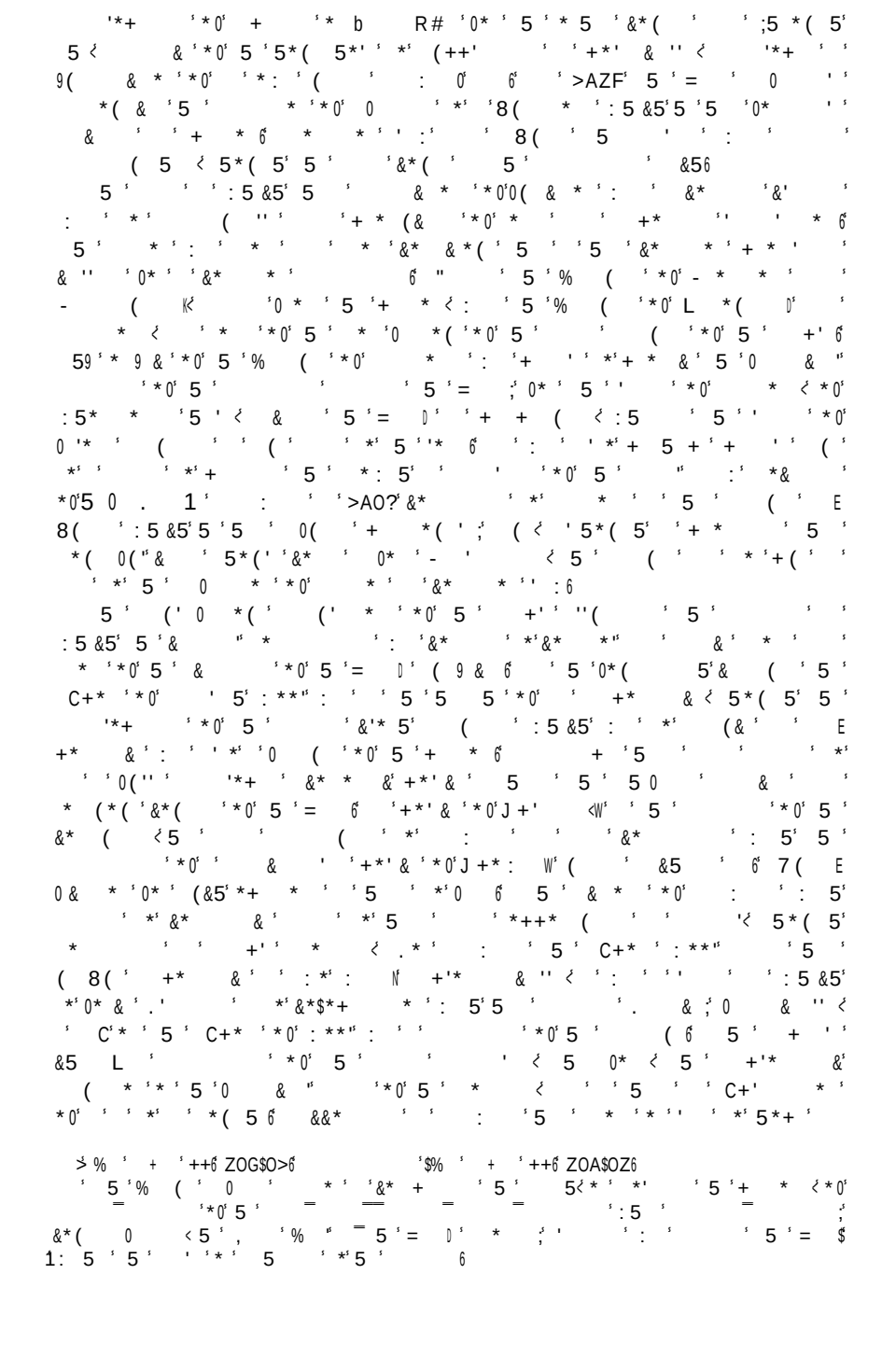

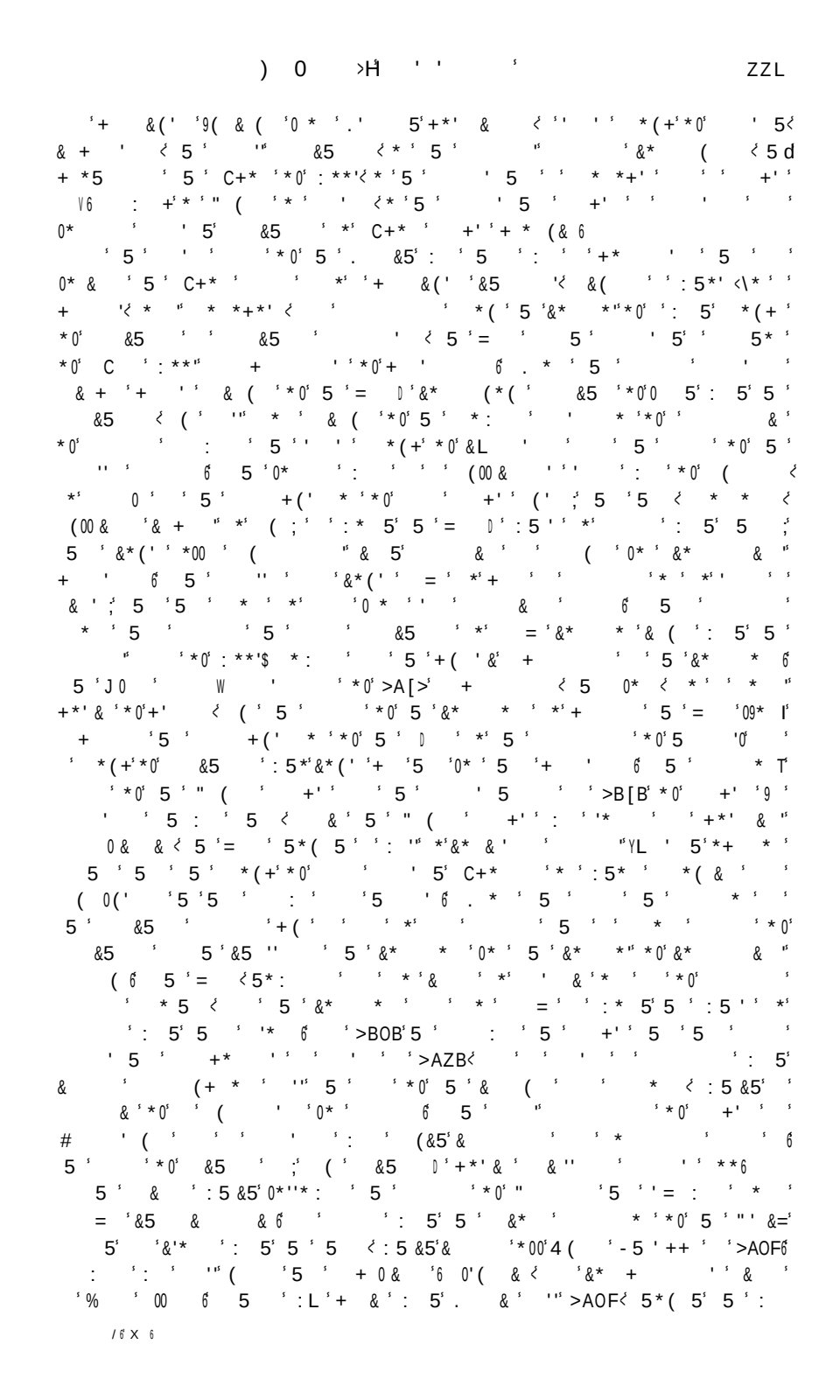

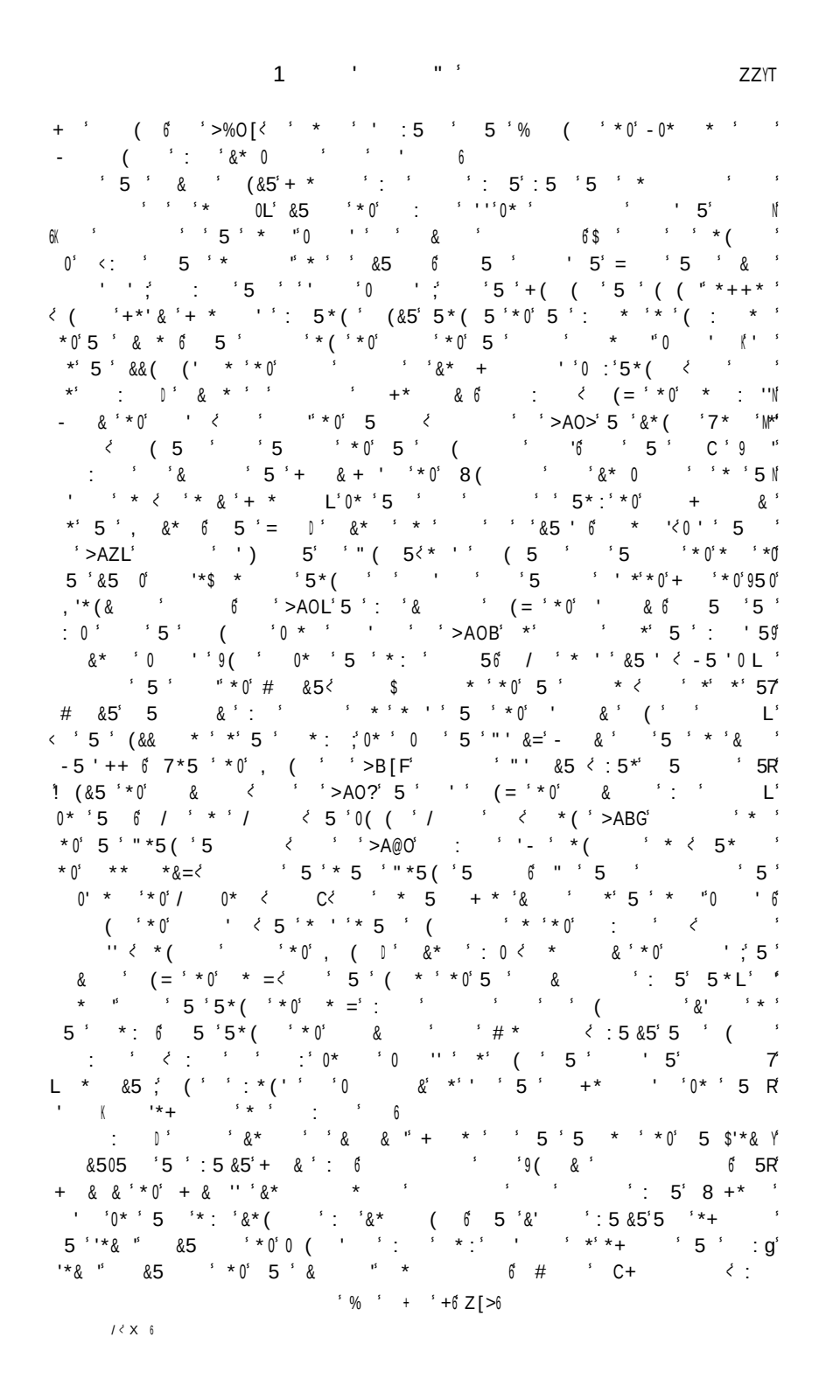

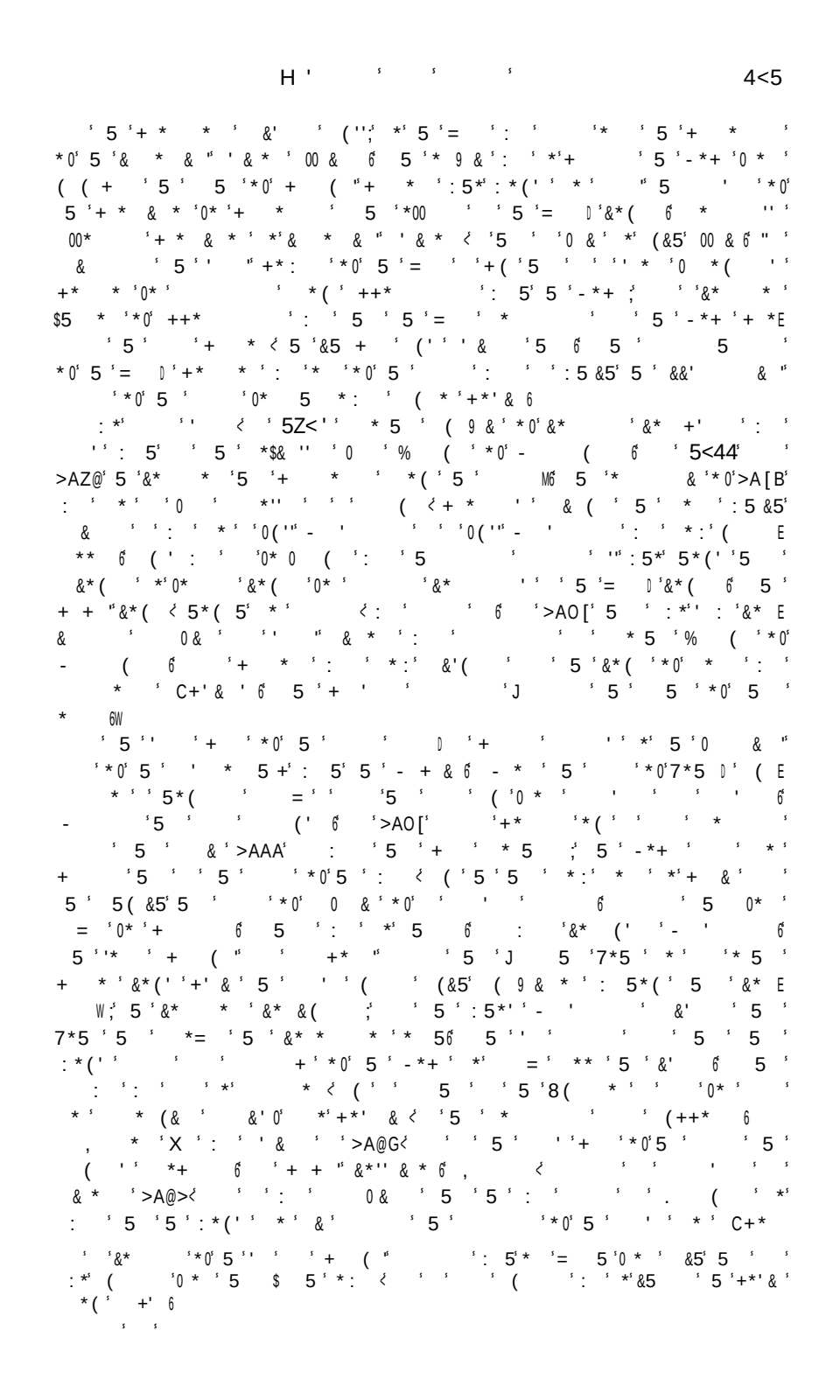

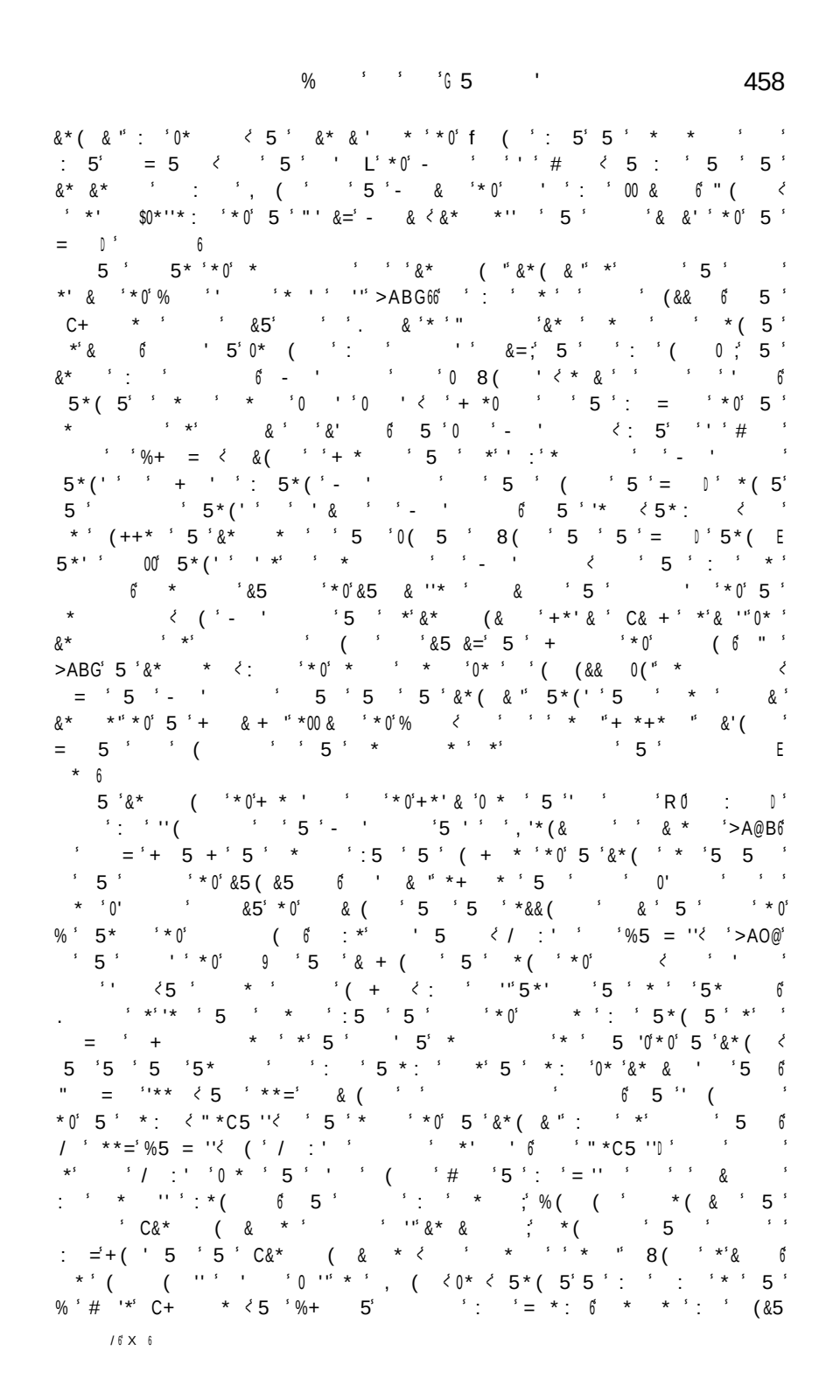

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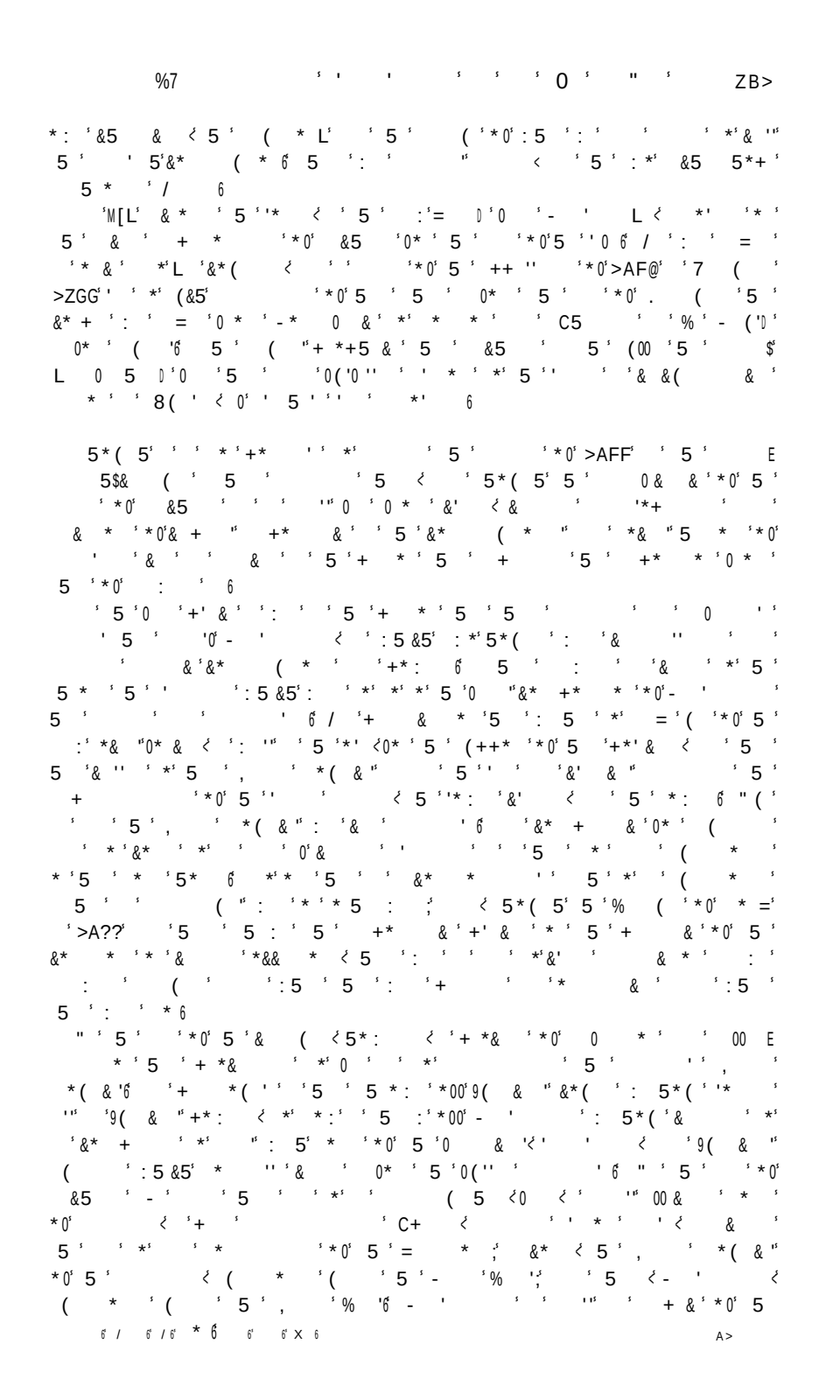

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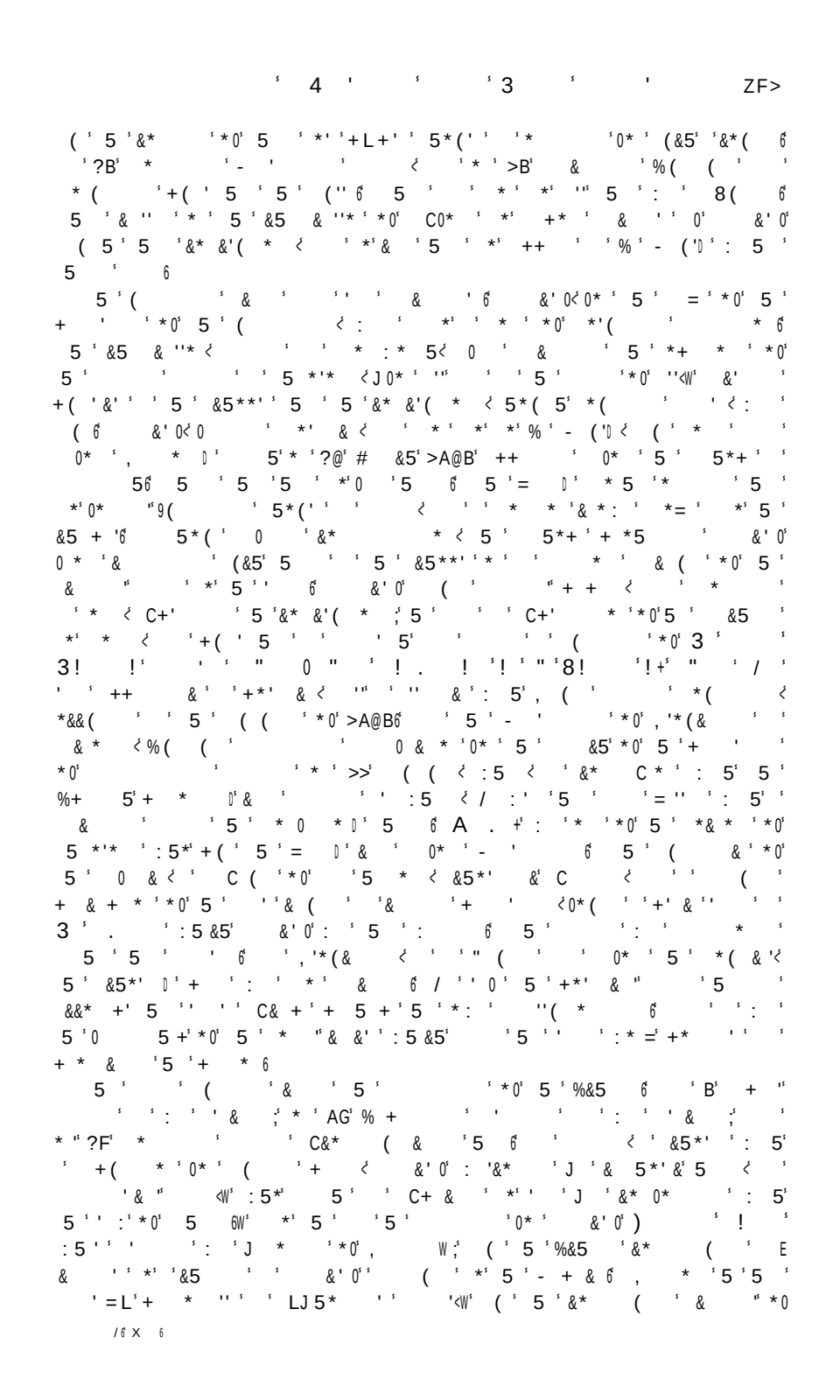

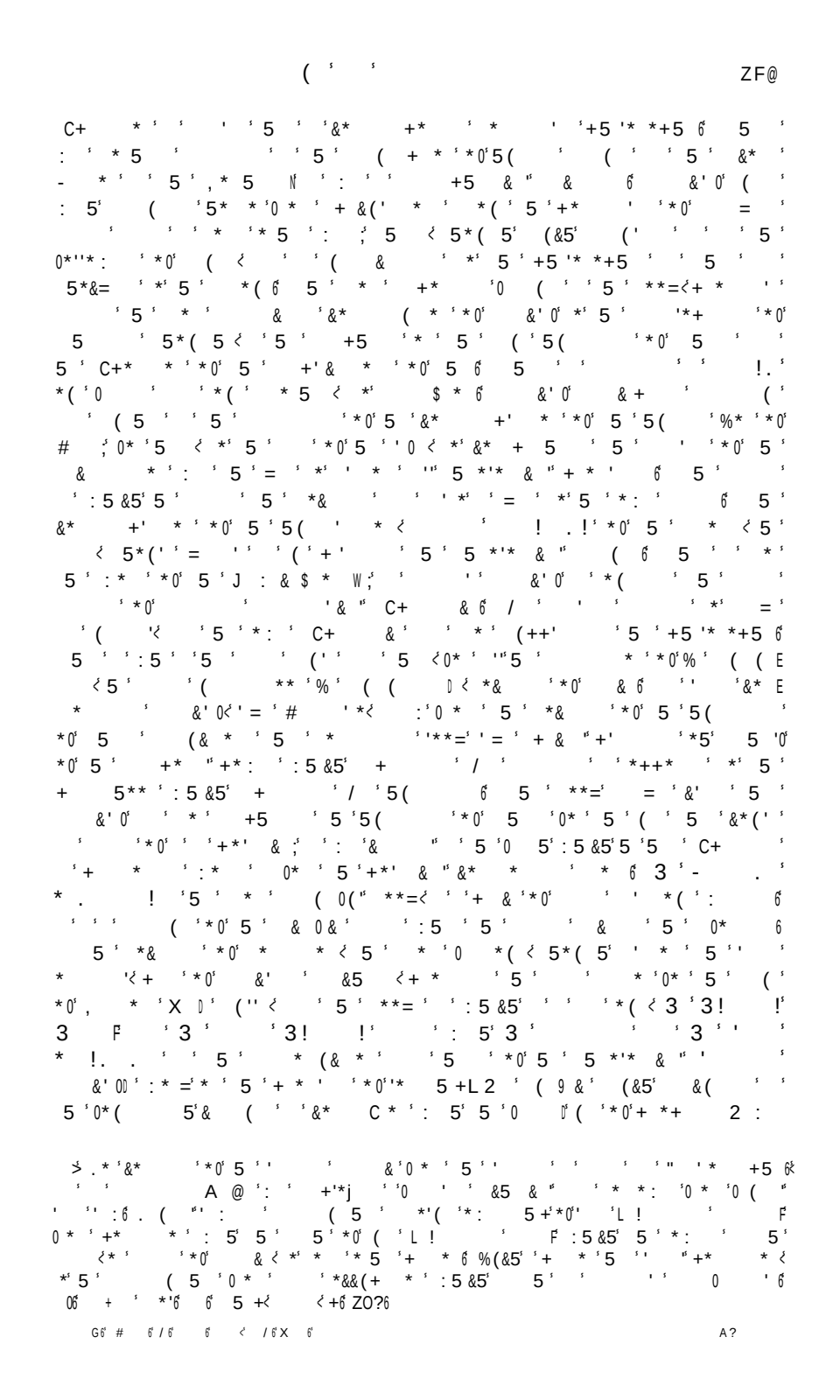

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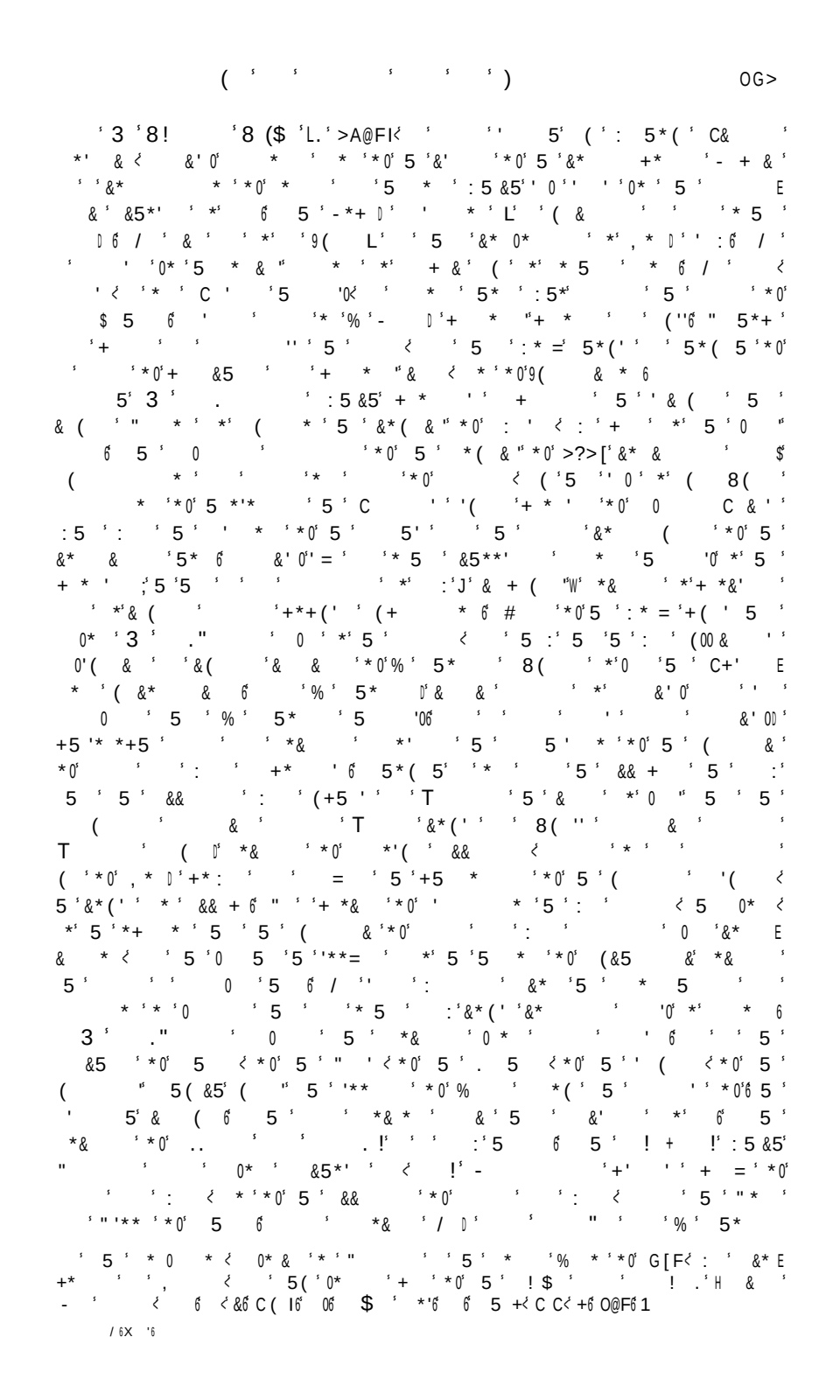

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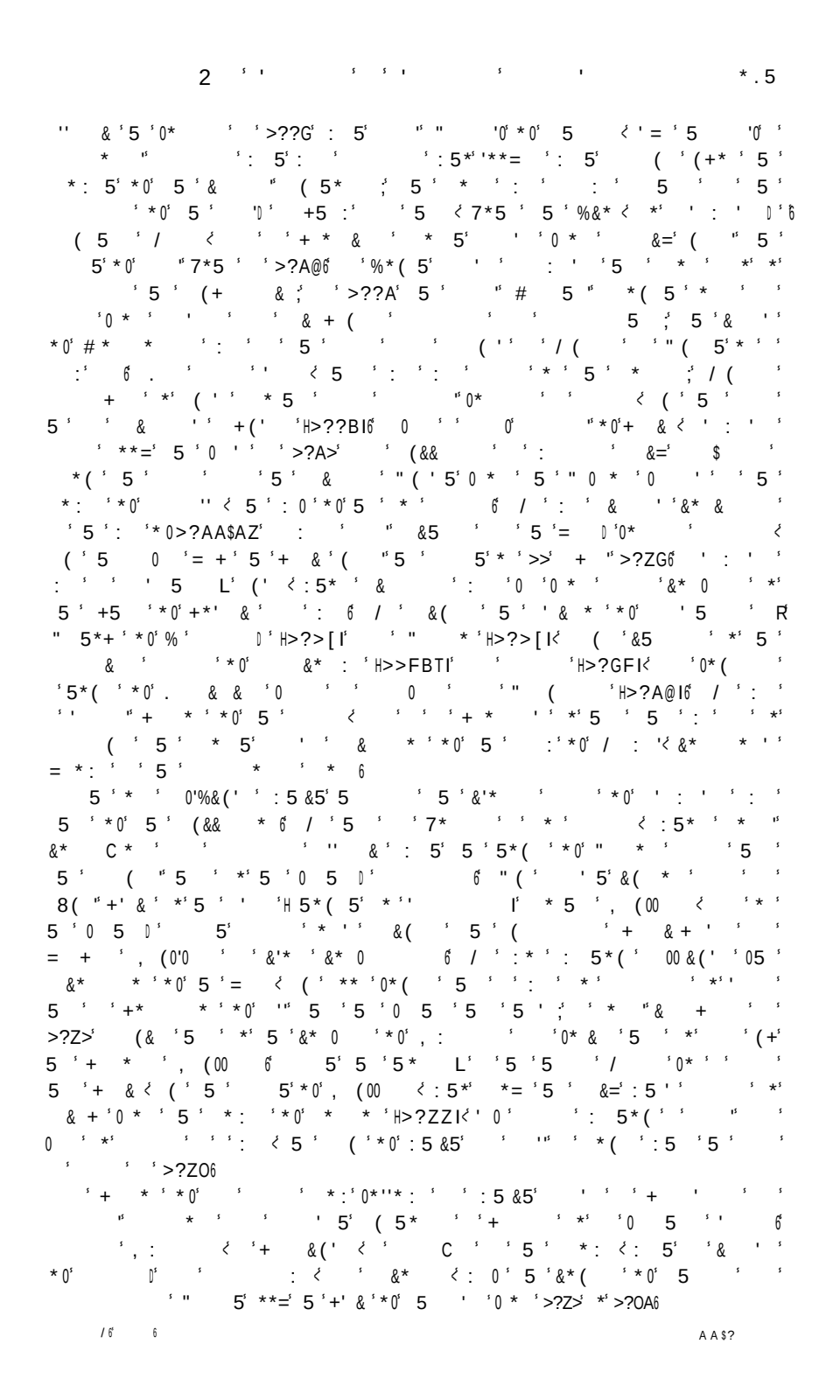

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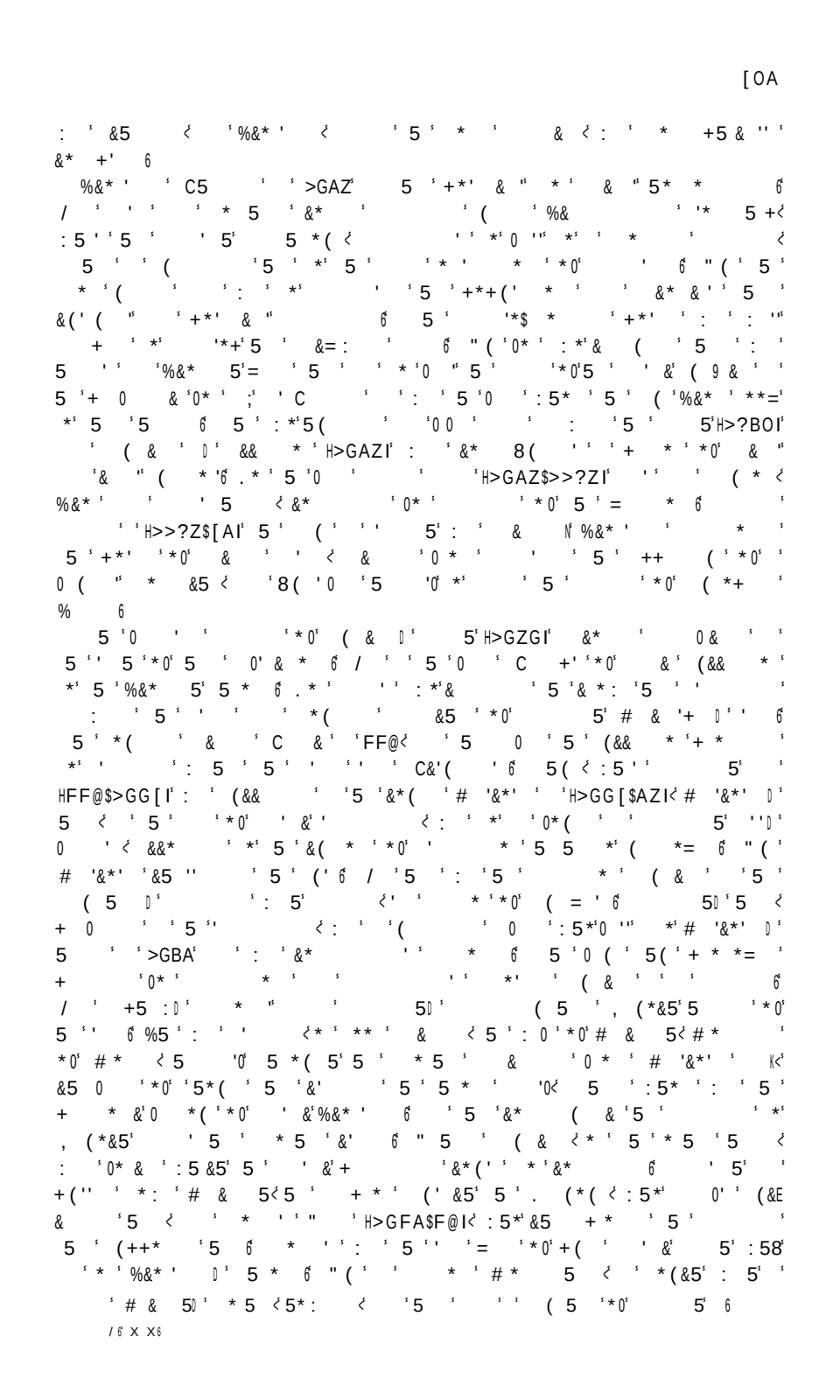

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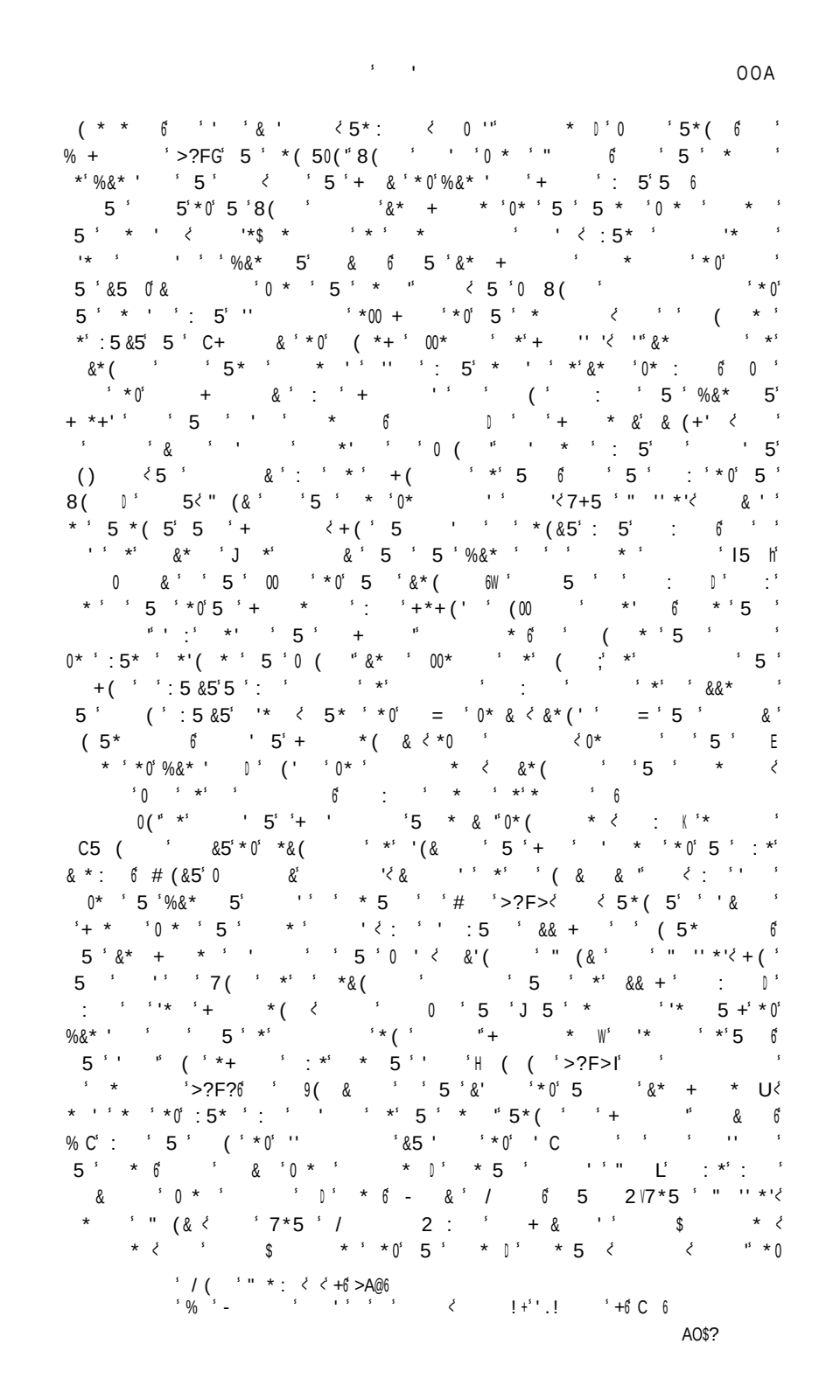

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father, gave way still farther and granted in 1288 to the revolted nobles and municipalities the *Privilegio de la Unión*, still more irksome to the royal authority than the *Privilegio General*. One clause gave to the Cortes the right of deposing the king if he omitted to fulfil certain of the privileges granted. Obviously matters could not rest there. The accession of a vigorous and resolute king, tenacious of royal prerogatives as they were then conceived, was certain to renew the struggle.

And so it was when Peter IV came to the throne: the struggle soon broke out, since the king, as we have seen, was not a man of a complacent disposition. The trouble began when Peter, being without male heirs, appointed his daughter Constance regent and heiress to the throne, whereas the Aragonese and Valencian nobles preferred the claim of Peter's brother James, Count of Urgel. For the time being the king was obliged to give way, for only the Catalan nobility and four Aragonese municipalities, Huesca, Daroca, Calatayud, and Teruel, took his side in the Cortes of 1347 at Saragossa. He confirmed the *Privilegio de la Unión* and agreed to change his council and the high officials of the palace, dismissing the Catalan nobles. But this submission on the part of the king was only provisional. Peter IV was waiting for the moment of his revenge, and for this purpose he strove to divide the nobles and form a strong party of his own. The members of the Union in Valencia gave him an excellent opportunity by sacking the houses of those whom they suspected of being partisans of the king. Peter attacked them, but failed in this first attempt (1348). He was himself for some time practically a prisoner in the hands of the Valencians, and suffered treatment but little compatible with his authority. About midsummer he escaped to Aragon, where the Union troops under the command of his brother were besieging the town of Epila. Loyal troops came to the assistance of the besieged, and in the battle which ensued the Union suffered a crushing defeat (21 July 1348). The king entered Saragossa, abolished the *Privilegio de la Unión*, and punished many of the delinquents with death. He did the same in Valencia shortly afterwards. The ferocity of these struggles and of the legal penalties of that age appears in the torments inflicted upon the Valencian unionists by the king. They were even compelled to drink the molten metal of the very bells which had called them to the meetings of the Union.

However, the abolition of the *Privilegio* went no farther than the actual contents of the document. The rights of the nobility as a social class remained intact, also those of the municipalities just as they existed in the ancient laws of the kingdom and in the local *fueros*; a fact which shews that Peter IV did not move against the fundamental political organisation of Aragon, but against the unwarrantable pretensions of the nobility and municipalities. Consequently, if the political power which the nobles had acquired by the Union was shattered, in other respects the Aragonese aristocracy retained their former power and social

influence, and did not acquiesce, as did the Castilian nobility a century later, in the total abolition of their political importance and their privileges over the plebeian classes.

The two kings who succeeded Peter IV, and with whom the fourteenth century in Aragon comes to a close, are of but slight importance in the political history of the country. The first of them, John I (1387–95), son of Peter IV, had to contend with the Count of Armagnac and the Count of Foix, who made vague claims to the crown, and had to quell another insurrection in Sardinia and a rising in Sicily. During his reign the duchy of Athens was lost to Aragon. John I was succeeded by Martin I (1395–1410), regent of Sicily, who left his only son, also named Martin, as king of that island. The latter died in 1409, leaving the kingdom to his father Martin I of Aragon; but he also died in less than a year without surviving issue or leaving any other will than that by which he had bequeathed his throne to his son Martin of Sicily. Thus uncertainty as to the succession raised a serious question which might have been calamitous if the usual appeal to arms had been made. Fortunately this did not occur.

The period of about a century so far covered in this chapter is a brief space in the nation's history. Yet in Castile the period from Alfonso X to Henry III and in Aragon that from Peter III to Martin I brought some interesting and sometimes radical changes both in political and in civil institutions.

With regard to social and economic life we see on the one hand in Leon and Castile an evolution towards personal freedom among the rural and urban lower classes, and on the other hand the growth of municipalities, centres of free civic life. We have little detailed knowledge concerning the former tendency. Documents of the thirteenth and fourteenth centuries contain evidence of servile insurrections and of protests against seignorial excesses—proof that in some districts the liberating movement was slow and met with strong resistance. The movement received legal support through the extension to the whole country of the law granted by Alfonso IX[1] in 1215 to the serfs, known as *foreros*, in the royal manors of Leon and in those subject to the Archbishop of Santiago. On the other hand it appears that the right of asylum in municipal territory enjoyed by fugitive serfs from the seignories was restricted; also there was a change for the worse in the status of a certain class, known as *behetrías*, who had to pay tribute and services to a lord. This change seems to have consisted of a restriction, in many cases, of the right possessed by some of these *behetrías* to choose any noble as their lord, this right being now restricted to choice among the members of some specified noble family. But apart from the *behetrías*, the number of free labourers must have become greater as the cultivation of the land spread and as the general wealth increased.

[1] See *supra*, Vol. VI, Chap. XII, p. 417.

This increase of wealth was furthered in the twelfth and thirteenth centuries by the formation of important industrial and commercial urban centres, first Santiago de Galicia, and later, after the conquests of Ferdinand III and Alfonso X, Seville and other towns in Andalusia. Moreover, the greater security of the strictly Castilian and Leonese districts, once the frontier reached and passed the line of the Guadalquivir, allowed the normal development of economic life in the north. In rural life and the extension of tillage the monasteries still played an important part, while at the same time they gave military aid to the kings, sending bodies of slaves, labourers, and dependants under the command of the abbot or of some layman appointed by him. Indeed so great was the civilising influence of the monastic system that the progress of the reconquest and the successive prosperity of the kingdoms so recovered can be traced on the map by counting the number of monasteries as exactly as by following the dates of Christian victories and the conquest of Moorish territories. The Military Orders founded in Leon and Castile during the Middle Ages, especially those of Calatrava and Alcántara, played a similar part to the monasteries in the colonisation of territory reconquered from the Arabs.

With regard to urban and municipal life, in proportion as the middle class increased, either entirely plebeian or possessing something of aristocratic privilege (*los caballeros de villa* or *colación*), the manual workers organised themselves in *gremios*, an institution similar to the gilds and corporations of other European countries. The professions or trades grouped in *gremios* were composed of the *menestrales* or workmen in manual industries, merchants, sailors, and *artistas* or workers in industrial arts. Protected by the municipalities and also by the kings, the gilds increased in importance and became an influential social element in city life. From the fourteenth century particularly, the kings made general laws, *ordenanzas de menestrales*, to regulate not only the inner life of the *gremios* but also the wages, the working day, the technical conditions of production in each trade. The development of commerce, especially the commerce of Castile and of the Cantabrian coast with France, Flanders, and other northern countries is shewn, among other things, by the existence of consuls, representatives in various foreign cities of the Spanish producers and exporters.

With regard to the nobility, the introduction of new titles is noticeable, replacing the old names of *ricoshombres*, *infanzones*, etc. From the time of Henry II the newer titles of marquess and duke are added to the ancient title of count. The title of Constable of Castile, the head of the army, appears to have been created during the reign of John I. Other important innovations were the fixing of the order of succession to titles by a law of the *Partidas* of Alfonso X and the institution of *mayorazgos*, an entail on real estate generally in favour of the eldest son. These *mayorazgos* soon extended to the upper middle class and caused a rigidity in the ownership of landed property. The wealth of the

nobles, originally founded on land, which by the progress of economic life, the freedom of the labourers, and the ever increasing importance of movable property was becoming less lucrative than formerly for the landowners, was however increased by the above-mentioned gifts or *mercedes* of the kings. These *mercedes* were often known as *encomiendas*. They were of two kinds: *encomiendas de honor*, when the king ceded to the noble the fiscal rights of a town or district; and *encomiendas de tierra*, when the king granted a rent or sum to be raised from one or various places or from the Jewish or Moorish quarter of a city.

The principal innovation in the social sphere was in respect of the Jews, as we have already indicated. They were strongly protected in the interests of science and literature in the time of Alfonso X and other kings, and played a great part in financial affairs both public and unofficial. Thenceforward we find mention of their economic privileges, as for instance the regulation by Alfonso X of the rate of usury. At the same time religious intolerance, stirred by pulpit oratory, was increasing among the people. In the Cortes of Burgos (1396) it was petitioned that the Jews should be deprived of the fortresses they held, of their public offices, of the farming of the royal revenues, and of the posts which certain of them held in the council of Henry III. The king granted only the last demand. But assaults on the ghettos and massacres by the populace became more frequent, and aggravated the situation.

Social innovations in Aragon and Catalonia were unimportant during this time. In the new kingdom of Valencia constituted by James I and inherited by Peter III, there was no servile Christian class of cultivators, but a class of Moorish slaves and tenant-farmers bestowed by the king upon the conquerors who obtained grants of land. As the majority of these were Aragonese nobles, rural life in Valencia was dominated by these lords and regulated according to the customs of Aragon. On the other hand, the middle class and the popular element predominated in the cities and important towns, giving to the Valencian municipalities a markedly democratic character, which received legal sanction from the *fuero* or charter granted by James I to the capital. This charter is one of the best models of municipal legislation of the late thirteenth and early fourteenth centuries, and was imitated later at Tarragona.

Social history in Majorca resembled that of Catalonia, with the difference that the aristocratic element was not represented there by the nobles and clergy but by the burghers or rich citizens of the capital who were the chief landowners. Their exploitation of the country folk (*forenses*) provoked a ferment of protests and tumults which at a later date degenerated into sanguinary revolts.

The chief political movement in Leon and Castile is the struggle between the monarch and the nobility, of which some account has been already given. As to public administration, a reform introduced by Ferdinand III was extended and securely established, the old *condados*

or *mandationes* (counties) being replaced by new territorial divisions known as *adelantamientos*, ruled by *adelantados*, divided into two classes, *mayores* and *menores*. Alfonso X defined their functions by law. If an *adelantamiento* touched the Moorish frontier, the governor was called *adelantado de frontera*. The legislative tendency, also initiated by Ferdinand III and greatly developed by Alfonso X, was more important and progressive. This tendency took two directions: the unification or steps towards the unification of law, and the introduction of the doctrines of the Justinianean Code. Unification was prepared by extending to various towns, by way of a municipal code, the application of the Visigothic *Liber Iudiciorum*, translated with some modifications into Castilian under the name of *Fuero Juzgo*, which was in force as the law of appeal in the royal tribunal. The same use was made of the so-called Royal *Fuero* promulgated by Alfonso X in 1254 and based on that of Soria. This was meant to be a typical or model municipal code and was extended to various cities such as Burgos, Valladolid, Avila, and Segovia. But this method was slow, and moreover clashed to a certain degree with the Romanising tendency favoured by the lawyers, which naturally tended towards juridical doctrines of a more modern character. Accordingly the late thirteenth century and the early fourteenth century is a time of erudite juridical compilations, sometimes the work of individual jurisconsults, sometimes the result of official orders, but seldom attaining legal authority. Nevertheless these compilations often had greater weight in jurisdiction than the very laws promulgated by the kings. Such was the case notably with the juridical encyclopedia, 1256–63, of Alfonso the Learned, drawn up in the form of a code and generally known by the name of the *Siete Partidas* because it is divided into seven books. Although composed by jurisconsults, some of whose names are known, the king himself directed the work, wrote a great amount of it, and revised the compilation of his collaborators. It draws upon the *fueros* and customs of Leon and Castile, but much more upon the Justinianean Code, the Italian commentators, and the Canon Law. Even these elements were not slavishly copied, but rather remodelled with modifications, which in some matters, such as the doctrine of royal authority, rectify the Caesarism so prevalent in the writers and the religious and political theories of the time. The *Partidas*, though not promulgated as law, were immediately established as a text-book in the universities, not only in the kingdom of Castile but in those of Aragon and Portugal as well, and through the students of law it exercised great influence upon jurisprudence.

Another compilation less extensive, known as the *Espéculo*, composed either during the reign of Alfonso the Learned or that of Sancho IV, had a similar influence. While these innovations were being made in juridical principles, the municipal institutions were developing in the direction of self-government. The first municipal organisations, whose *fueros* or charters contain economic and juridical privileges and the

recognition of individual rights, worked under the authority of the king and the immediate direction of the count representing the king. The judges who administered justice were appointed by the king either directly or through the *juntas* or judicial assemblies presided over by the count. In addition to these judicial assemblies, there were also others composed of all the householders, which like the ancient rural *juntas* of the Visigoths (*concilium vicinorum*) concerned themselves with local affairs connected with land, irrigation, and cattle. Some of these assemblies are called *concilios* in documents of the period, whence the Castilian word *concejo*, which later came to mean the corporate entity of the town.

By degrees the cities obtained, either from the king or from their seigniors, the right of electing their own judges as distinct from the royal judges in order to reduce litigation and to settle questions of general interest to the citizens. The exercise of this right, which gained ground during the period we are considering, gave to the *concejos* or municipalities a more democratic tendency and a growing feeling of strength and importance, particularly in the principal towns such as Burgos, Toledo, Valladolid, Seville; and it strengthened their influence in the Cortes on matters of general policy. But the equality imposed by the *fuero* on all citizens, of whatever class, could not prevent strife between the classes for the exercise of power, especially when the assemblies were replaced by town-councils or *Cabildos*, executive corporations composed necessarily of smaller numbers than the assemblies and elected by the householders. These struggles were less violent in Leon and Castile than in Catalonia, Valencia, and other regions. Nevertheless in the long run the result was that the *Caballeros* of noble or plebeian origin took possession of the town-councils or dominated them.

In the kingdom of Aragon, through special circumstances of a social and economic nature, the two cities most typical and most advanced in their autonomy were Barcelona and Valencia, the former being the capital of the ancient county and the latter the capital of the new kingdom created by James I. But on the other hand these cities were the scene of the hottest political struggles between the rich burghers and the plebeians.

The importance of the Cortes also increased during this period through the combined effect of all the afore-mentioned circumstances and of the struggles between the nobility and the king, who sometimes from motives of policy and frequently of necessity sought the support of the municipalities and of the Cortes which represented them, particularly in Leon and Castile. For some time these two ancient kingdoms, definitely united as we have seen under Ferdinand III, had separate Cortes; but already in the time of Alfonso X they met together, and the fusion was finally established in the fourteenth century. But the existence of three separate Cortes for the three great territories of the Crown of Aragon was maintained, except in certain exceptional cases. There were therefore separate

Cortes in Aragon, Catalonia, and Valencia. Among their functions was the singular right known as the *derecho de greuges* or *agravios*, which meant the presentation of protests made by the municipalities or by other bodies attending the Cortes against the king or his officers for infringements of law. As time went on they also enjoyed a greater share in legislation than the Cortes of Leon and Castile. The origin of this does not appear to be earlier than 1283, that is to say than the reign of Peter III. Unanimity was necessary for the passing of any resolution. The principal cities disposed of a number of votes, while the less important had only one. Saragossa and Barcelona had five votes each.

When, on account of the death of the king and the extinction of the dynasty through lack of direct heirs, a new king had to be elected, the Cortes held a special meeting which took the name of Parlamento. Such a meeting was first held at Borja in 1134 and elected Ramiro the Monk as King of Aragon. During the intervals between the sessions of the Cortes, a Junta or Committee, appointed by the Cortes, sat, called *Diputación General* in Aragon and *Diputación General* or *Generalidad* in Catalonia. The formal existence of this Junta cannot be clearly traced before the fourteenth century. Navarre and Valencia had similar permanent committees of the Cortes. The duty of the Junta was to watch over the observance of the laws and the expenditure of public funds.

In the reign of James II, and even more so in that of Peter IV after the defeat of the Unionists, the special institution, which probably originated in the twelfth century, known as the *Justicia Mayor de Aragón*, became particularly important. James I on the petition of the nobles granted to this judge, who was a member of the Curia or Royal Tribunal, the power of holding a court of first instance and also of hearing appeals from the courts of the local justices. In the Cortes of 1348, Peter IV made the office tenable for life, with the special function of interpreting the *fueros* and acting as judge of *contrafuero* or violation of *fueros*. In this capacity the *Justicia Mayor* saw to the fulfilment of the *fuero de manifestación*, a sort of legal guarantee by which the accused was kept in a special prison while the competent judge dealt with the case. The *Justicia* also saw to the enforcement of the *fuero de firma de derecho*, which guaranteed the personal liberty and the property of the litigant, except in cases of serious offences, during the time he remained uncondemned, a guarantee similar to the *mesures conservatoires* of the present law. These two powers of the *Justicia* played an important part in later centuries, when the struggle developed between the absolute monarchy and the *fueros*. On the other hand, the power also granted to him of acting as mediating judge between the king and the nobles was no more than a moral guarantee which has been compared to a sheathed sword. Only once, in the time of James II, did the *Justicia* settle a question of that nature between the king and the nobility.

Finally, a fact of considerable importance from the economic as well

as from the legislative point of view was the creation, in Valencia in 1283, Majorca in 1343, and Barcelona in 1347, of a court to deal with commercial affairs, known as the Court of the Consulate of the Sea. Simultaneously, there appeared at Barcelona (in, or shortly before, 1283) a collection of commercial law (*Llibre del Consolat de Mar*), thus giving legal form to the customary maritime law which had been elaborated during the preceding centuries along the eastern coasts of Spain.

CHAPTER XXI

RUSSIA, 1015–1462

By accepting, in 988, Christianity from the Greeks, St Vladimir did nothing more than give a new expression to an existing state of things. Constantinople was already the economic metropolis of Russia; it was now explicitly recognised as its religious metropolis. The new-born Russian Church became an ecclesiastical province of the patriarchate of Constantinople, with all the cultural consequences implied by such a dependence. This state of things continued for some time to correspond to the economic and political situation. But even when, after the middle of the eleventh century, the commercial relations of Kiev with Constantinople were severed by the nomads of the South Russian steppe, the cultural and ecclesiastical connexion remained. Russia had definitely become a part of Eastern Christendom. When the breach between the Greek and Latin Churches became final, Russia remained with the Greeks, and thus outside the pale of Western Christendom. Isolated geographically from the Greeks and the Orthodox Balkans, she was isolated culturally and religiously from her neighbours in the West. This isolation is the main fact in the subsequent history of Russia.

On the death of Vladimir in 1015[1] his power devolved on all the surviving members of his family. These included Svyatopolk, son of Vladimir's elder brother Yaropolk, and his own stepson; the children of Vladimir's eldest son Izyaslav, who had been made Prince of Polotsk in his father's lifetime and had died in 1001; and several sons by different mothers, for in his heathen days Vladimir had had many wives and concubines. Svyatopolk, who was married to a daughter of Boleslav, Duke of Poland, became Great Prince[2] of Kiev; the sons of Izyaslav remained in their patrimony of Polotsk; the others retained as princes the several cities where they had been installed by their father as his lieutenants. Immediately after Vladimir's death Svyatopolk attempted to restore his uncle's monarchy by eliminating his brothers. He caused Boris, Prince of Rostov, and Gleb, Prince of Murom, to be murdered (July–September 1015). But Yaroslav, Prince of Novgorod, rose to avenge them, and a war began in which Svyatopolk called in the help of his Polish father-in-

[1] For an account of the reign of Vladimir (Vladímir) see *supra*, Vol. IV, Chap. VII, pp. 208 sqq.

[2] In accordance with its meaning in modern Russian it is customary to translate the Old Russian *knyaz'* by *Prince*. This, however, for the earliest period is not correct. Not only is the word (old Slavonic *kŭnĕdzĭ*) identical with the old Norse *konung*, Anglo-Saxon *cyning*, but Latin writers of the eleventh–twelfth century invariably translate it by *rex*. As late as 1227 Honorius III addresses a bull *universis regibus Russiae*.

law, but was ultimately defeated and fled abroad, where he perished obscurely (1019). Yaroslav became Great Prince of Kiev, but his brother Mstislav of Tmutarakan', a warrior who remained long famous in literary and oral tradition for his adventurous bravery, claimed his part in the succession of his deceased kinsmen. He defeated Yaroslav, and ruled over the whole country east of the Dnieper. Only on Mstislav's childless death in 1035 did Yaroslav become sole ruler of Russia as his father had been.

The years of Yaroslav's undivided rule and those immediately following are the golden age of Byzantine Kiev. The work of Byzantinisation, scarcely begun by Vladimir, was now carried on apace. The Church spread its influence. In the martyred Princes Boris and Gleb, now canonised, Russia received her first national saints, for St Vladimir seems to have been canonised only in the thirteenth century. The great monastery of Pechersk was founded, and Ilarion, first Russian Metropolitan of Kiev, in his sermons rivalled the most sophisticated Greek orators. Yaroslav was a great builder. The churches of Kiev, especially the cathedral of St Sophia, their frescoes and mosaics, are among the most characteristic monuments of eleventh-century Byzantine art. Commerce flourished, and Kiev became, next to Constantinople, the wealthiest and most beautiful city of Eastern Christendom, "clarissimum decus Graeciae et aemula sceptri Constantinopolitani," says Adam of Bremen. This period of intense Byzantinisation also saw the last Russo-Byzantine war (1043–46), in which the Russians, led by Yaroslav's eldest son Vladimir, were at first successful by sea, but a Russian army which landed at Varna was completely destroyed by the Greeks. The peace, however, was followed by the marriage of Yaroslav's son Vsévolod to a Byzantine princess[1]. At home these years were a time of peace. Russian rule was extended and solidified along the frontiers, especially in the direction of Livonia, Lithuania, and Poland. In the south conditions were also exceptionally favourable: the Patzinaks had moved westwards (they are heard of on the Dnieper for the last time in 1034), and were replaced by the much less dangerous Torks (Uzz Turks), who gave little trouble to the Russian marches. Yaroslav's dynastic relations extended also to the west of Europe: his daughter Anne was married to Henry I, King of France. Yaroslav was the last Russian prince to keep in close touch with the Scandinavian North. Northmen gave him active help in the struggle with Svyatopolk; Harald Hardrada married his daughter; and his son Izyaslav's wife was the daughter of Harold of England.

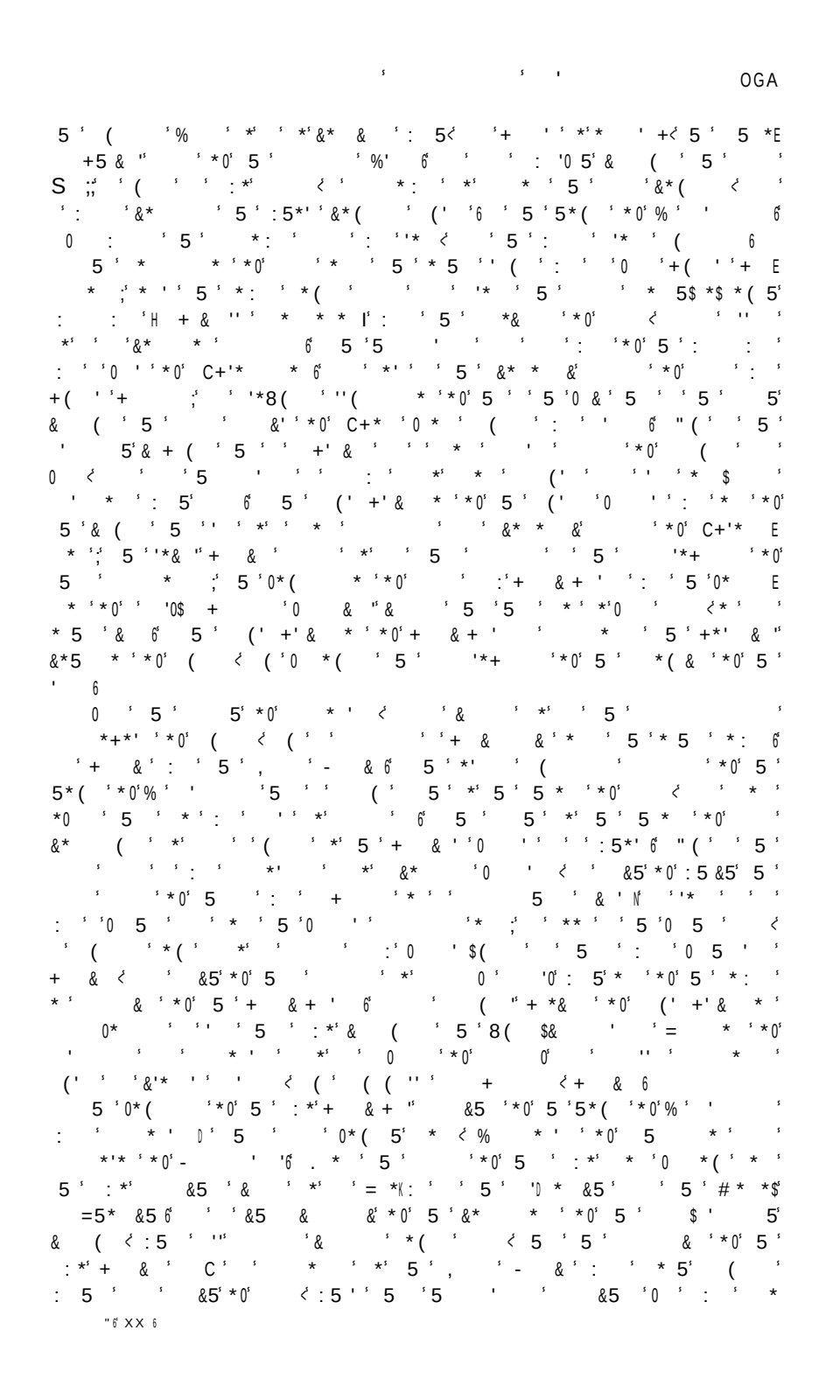
On Yaroslav's death (1054) authority once again devolved on the whole family: Izyaslav-Demetrius, his eldest surviving son, occupied the throne of Kiev, while the younger brothers, Svyatoslav and Vsévolod, received the other principal cities, Chernigov and Pereyaslavl. Vseslav, Prince of Polotsk, who had kept quiet as long as his uncle Yaroslav lived, and Yaroslav's grandson Rostislav (the son of Vladimir Yaroslavich, who had

[1] See *supra*, Vol. IV, p. 111.

died before his father), dissatisfied with their share in the partition, rose in arms, but were easily suppressed and Vseslav was brought a prisoner to Kiev. The conditions of Yaroslav's time might have continued but for the introduction of a new factor: in 1061 the Cumans (in Russian *Pólovtsy*), a powerful and warlike nation, made their first appearance in the South Russian steppe, forced the Torks to retire behind the Russian frontier, and, in 1068, inflicted a crushing defeat on the united armies of Izyaslav, Svyatoslav, and Vsévolod (near Pereyaslavl). This victory of the nomads had lasting consequences, for it assured their mastery of the South Russian steppe, and put an end to the commercial connexion of Kiev with Constantinople by closing the Dnieper waterway. It had a more immediate effect, too: the defeated Kievian militia, returning home on the heels of the flying Izyaslav, deposed him and proclaimed his prisoner Vseslav of Polotsk Prince of Kiev. Izyaslav fled abroad, but returning the following year with a Polish army instituted a reign of terror against all whom he suspected of having favoured Vseslav. Svyatoslav and Vsévolod were alarmed at the success of Izyaslav, who had acted all the time on his own, introducing foreigners without consulting his brothers. The citizens of Kiev were indignant at Izyaslav's methods of suppression, and opened their gates to his brothers. Svyatoslav was proclaimed Great Prince. Izyaslav escaped abroad and for several years wandered an exile in the West, trying to interest in his cause first the Emperor and then the Pope, promising to the former the submission of Russia to the Empire, to the latter its adhesion to the Latin Church. Ultimately he once again secured a Polish army, and marched with it into Russia. By that time Svyatoslav had just died, and Vsévolod allowed his elder brother to enter Kiev unopposed (1076). The sons of Svyatoslav found themselves excluded from their patrimony of Chernigov. One of them, Roman, was Prince of Tmutarakan' and in that outlying sanctuary beyond the reach of their uncles he gave hospitality to his eldest brother, Oleg. In 1078 Oleg issued forth to assert his rights to Chernigov. He brought with him an army of Cumans, thus establishing a precedent that was followed in the following century and a half by countless princes. In the battle that ensued Oleg was defeated, but Izyaslav was killed, and Vsévolod succeeded to the throne of Kiev.

Vsévolod's reign (1078–93) was comparatively quiet, though Oleg and the disinherited princes, established at Tmutarakan', gave ceaseless trouble. So did the Cumans, but they were held in check and often severely chastised by Vsévolod's son Vladimir Monomakh, grandson on his mother's side of the Emperor Constantine Monomachos, a prince who early began to acquire a universal popularity. Vsévolod himself, a good Christian and a generous lord to his companions and citizens, was much loved by the people of Kiev and approved of by the clergy, who had a predominant influence on the moulding of general opinion.

On Vsévolod's death the Kievians wanted to have Monomakh for his



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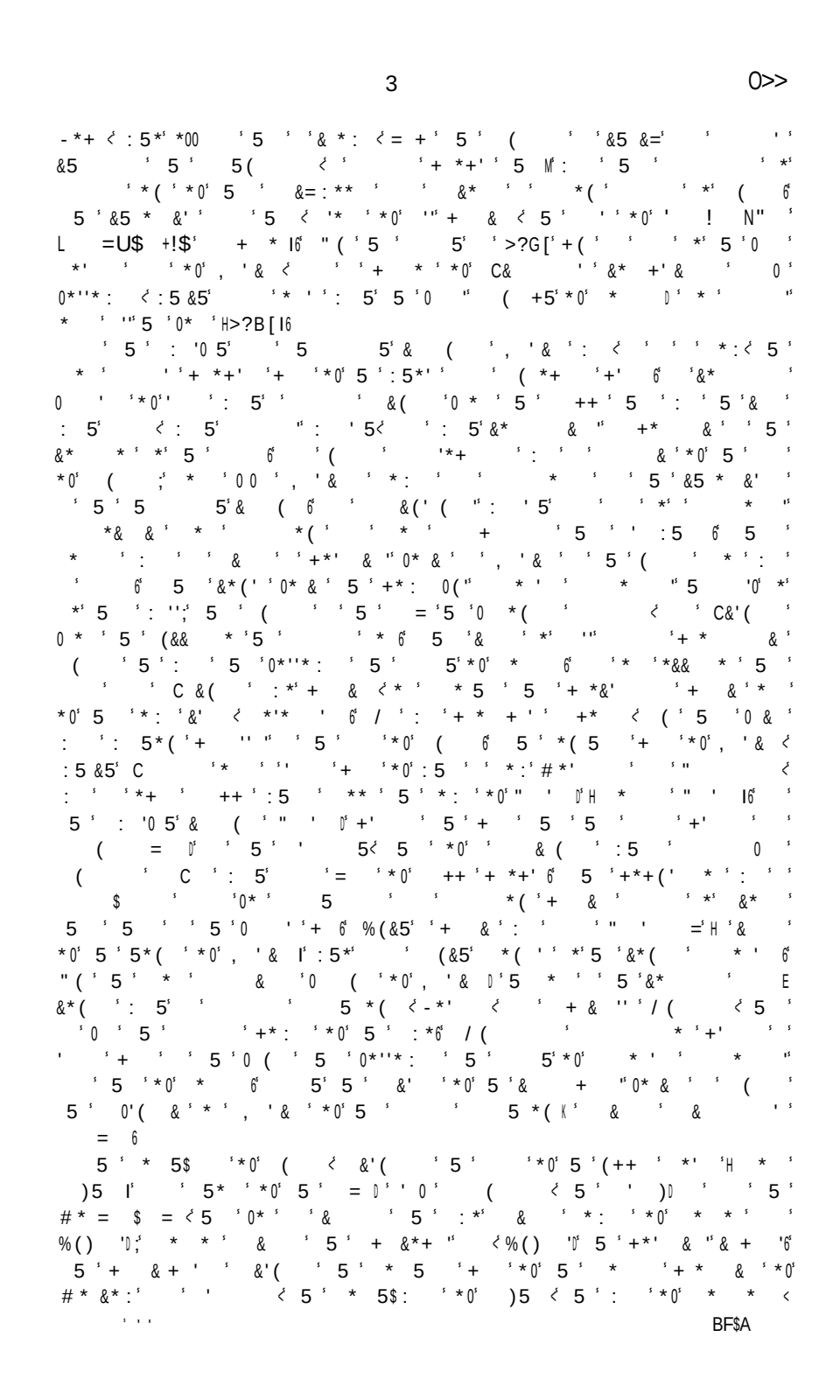

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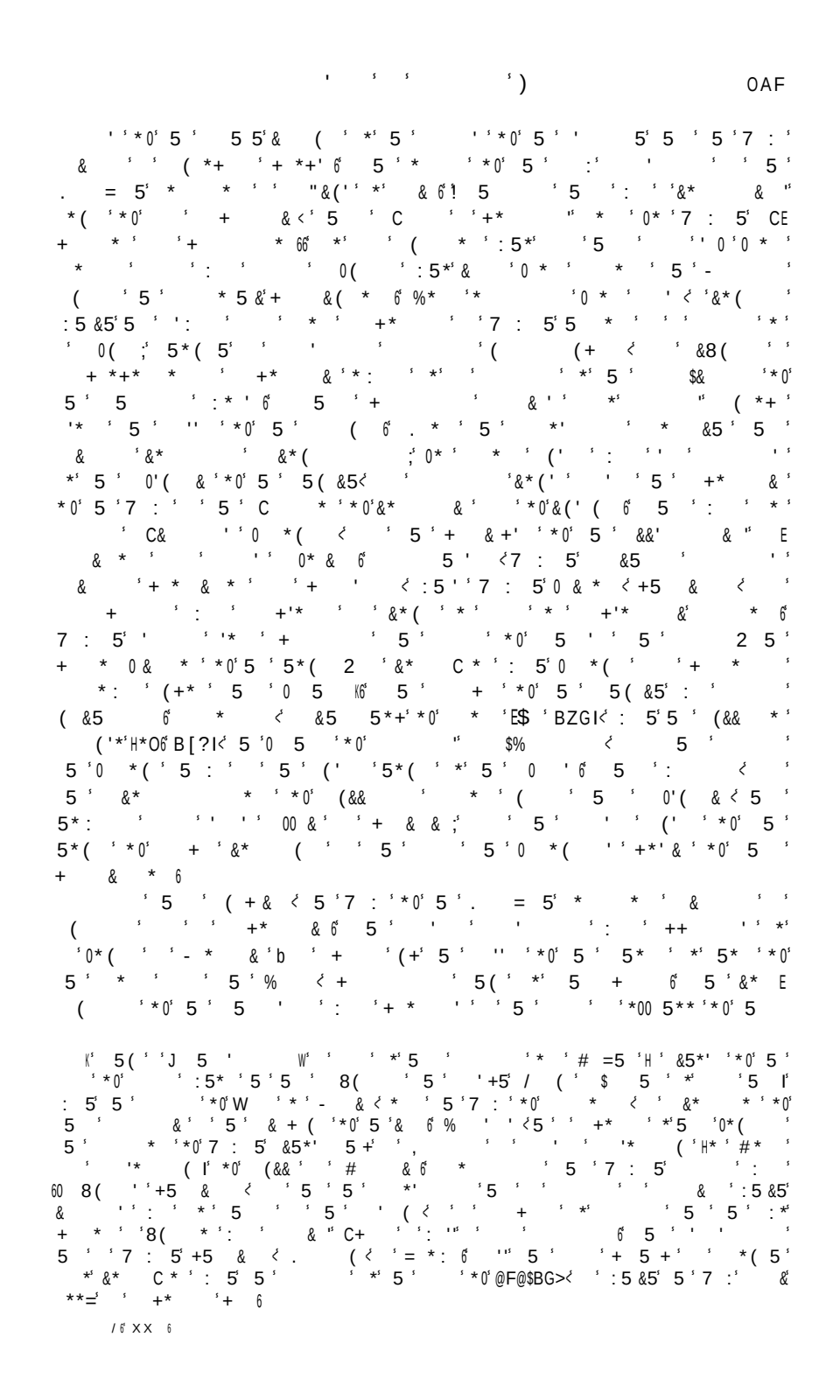

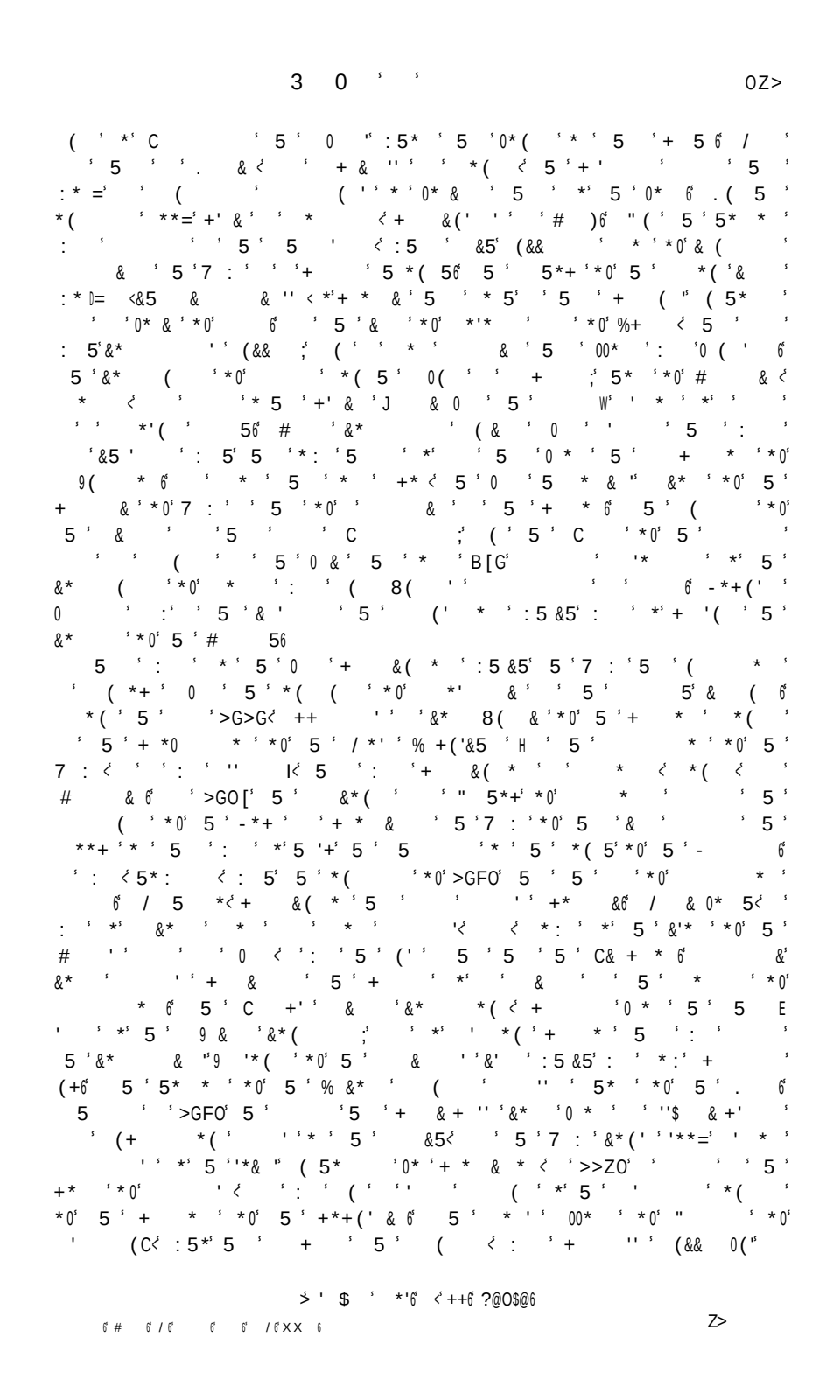

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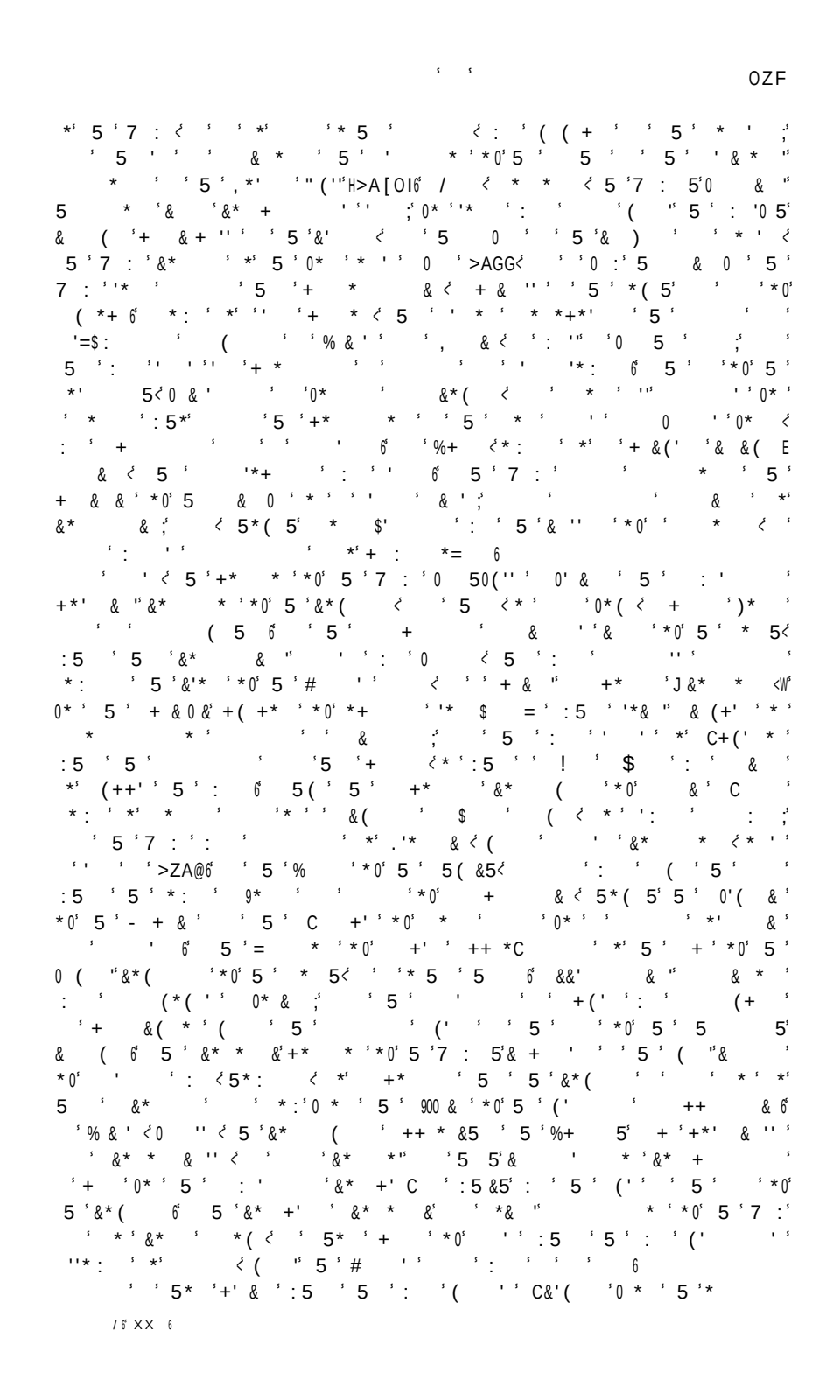

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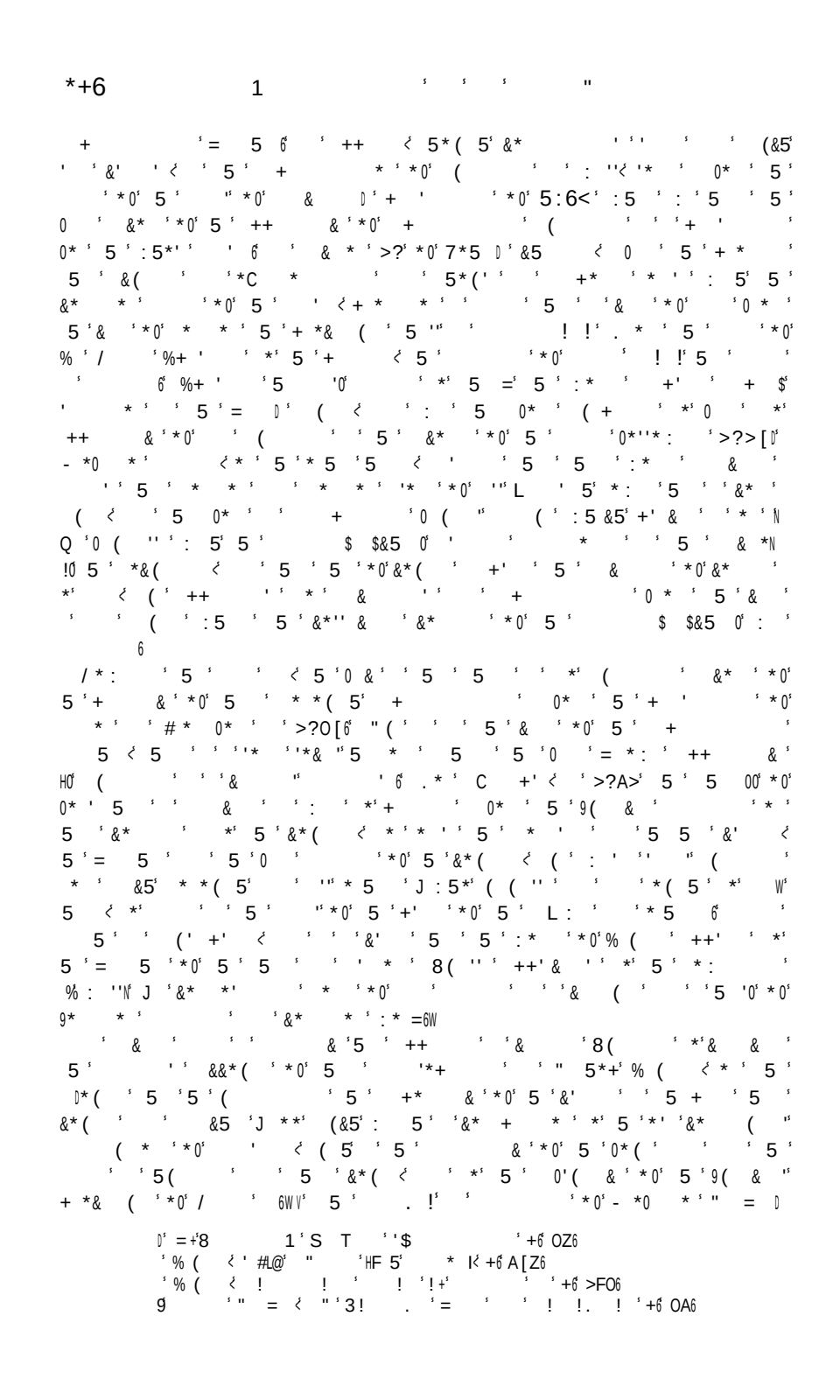

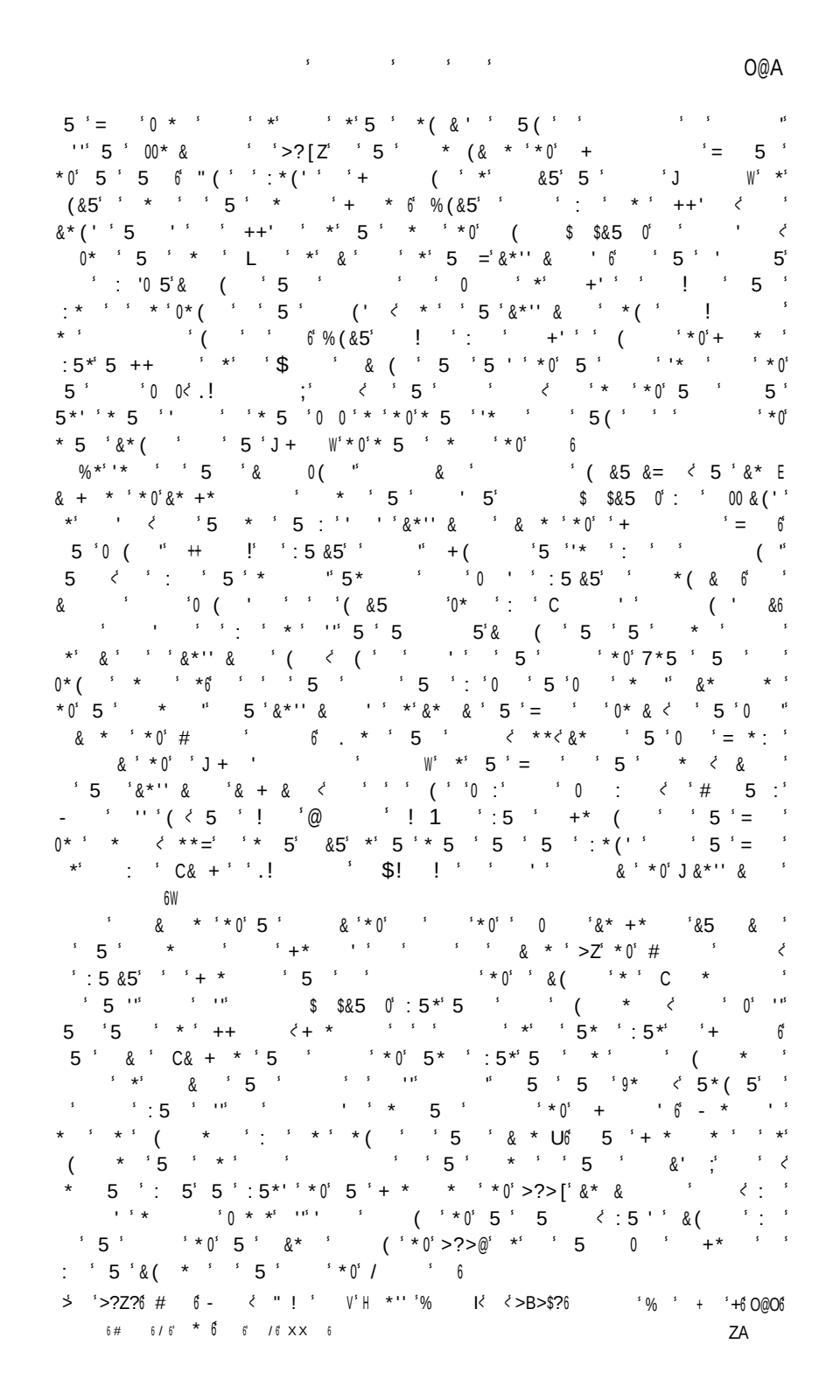

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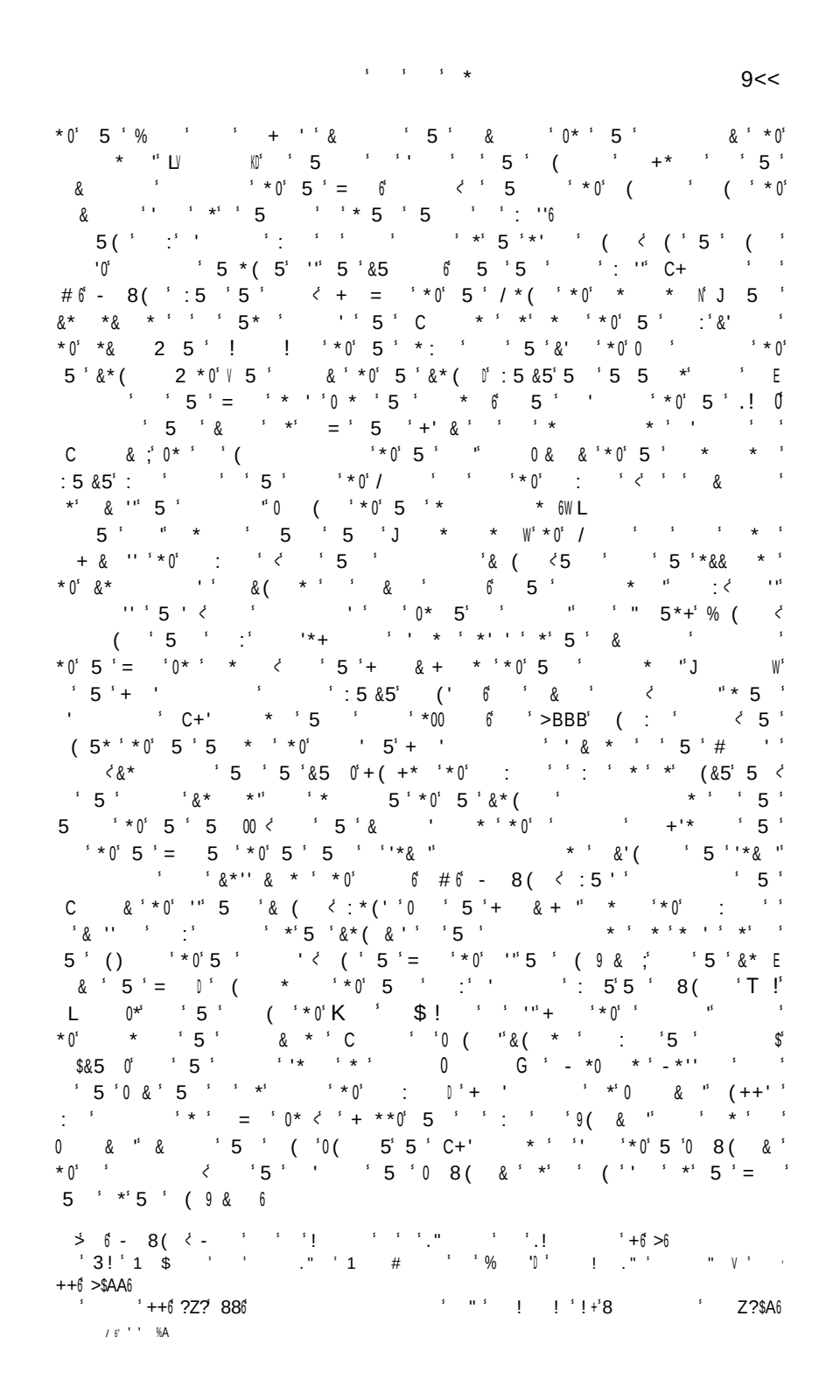

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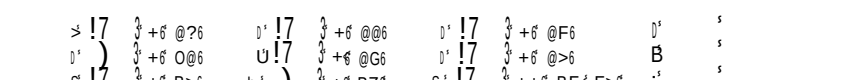

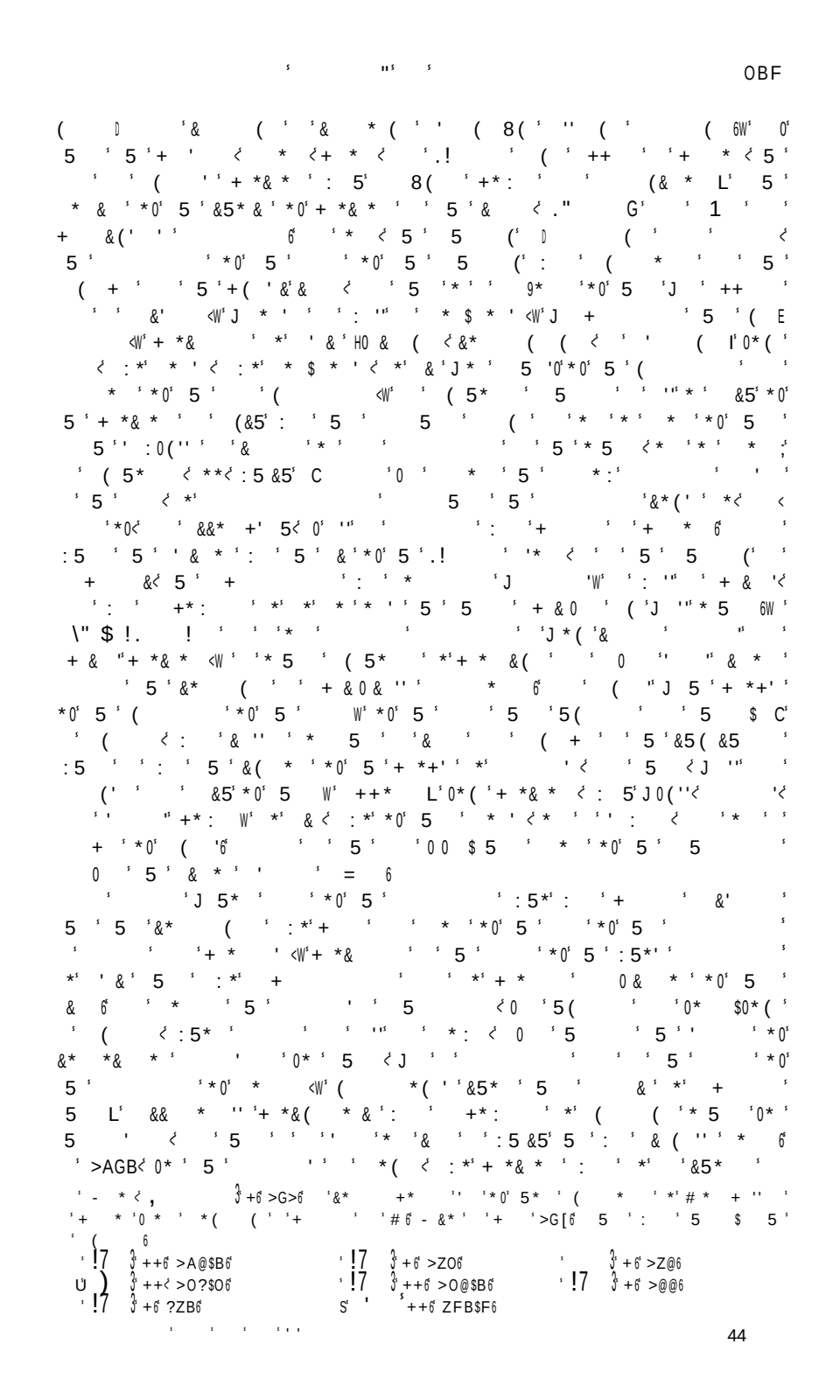

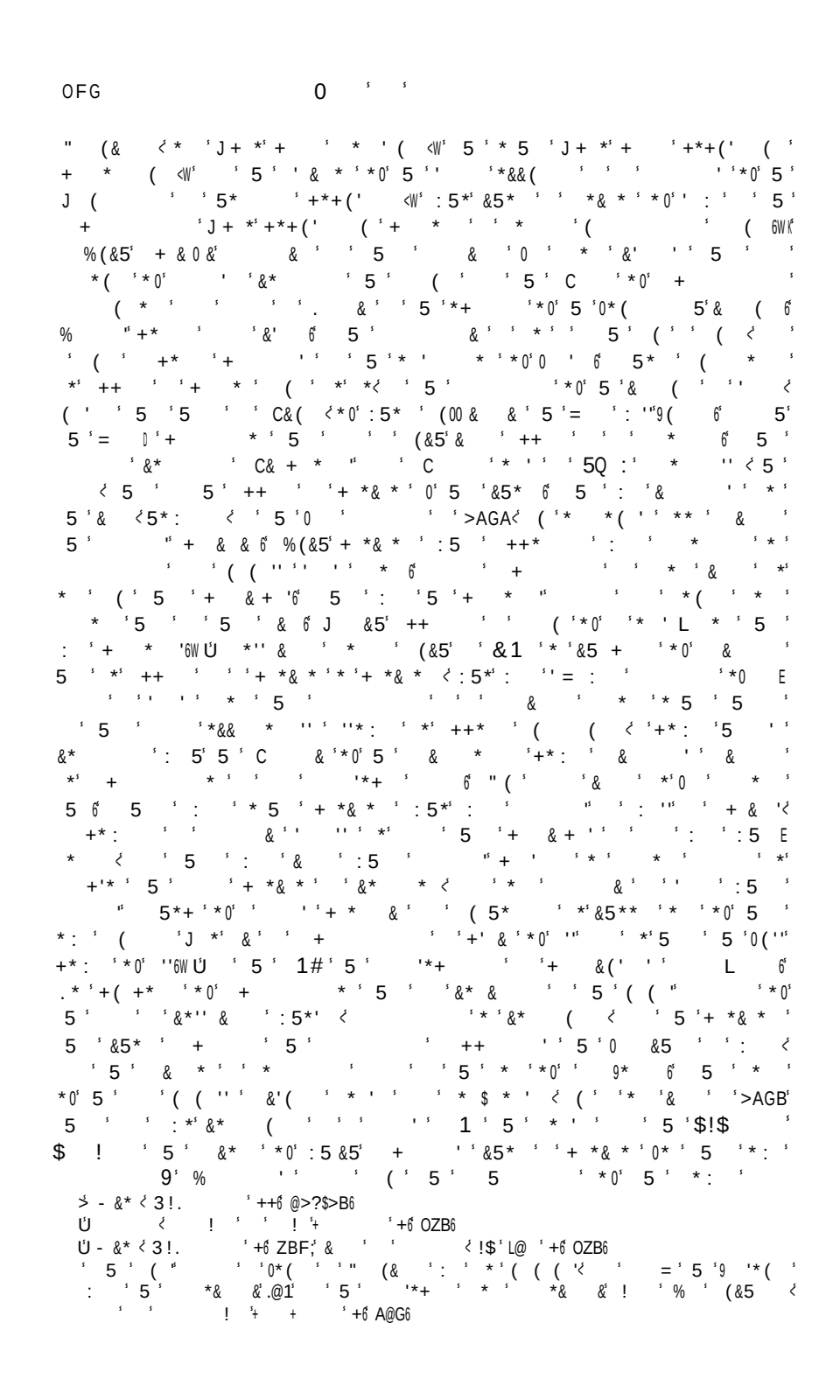

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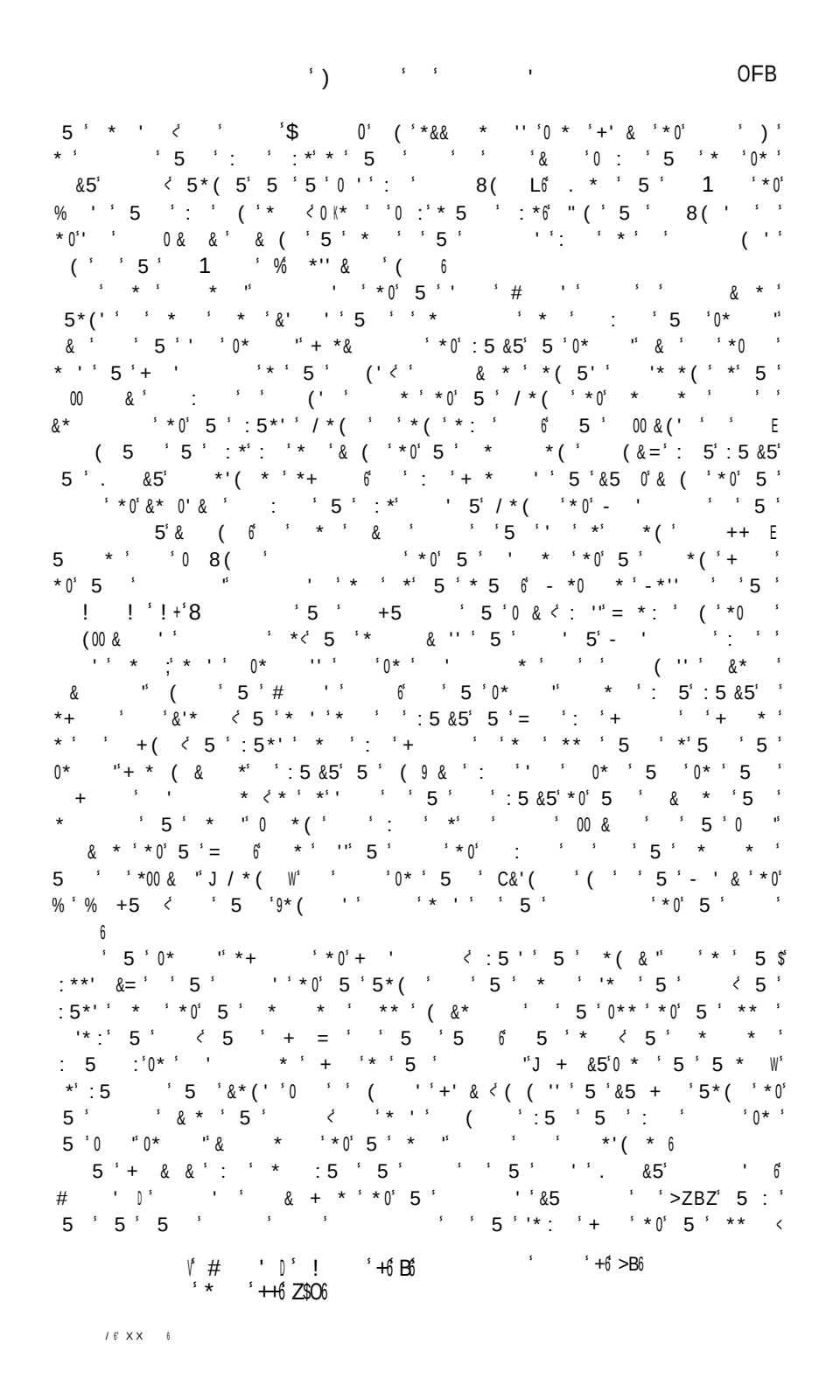

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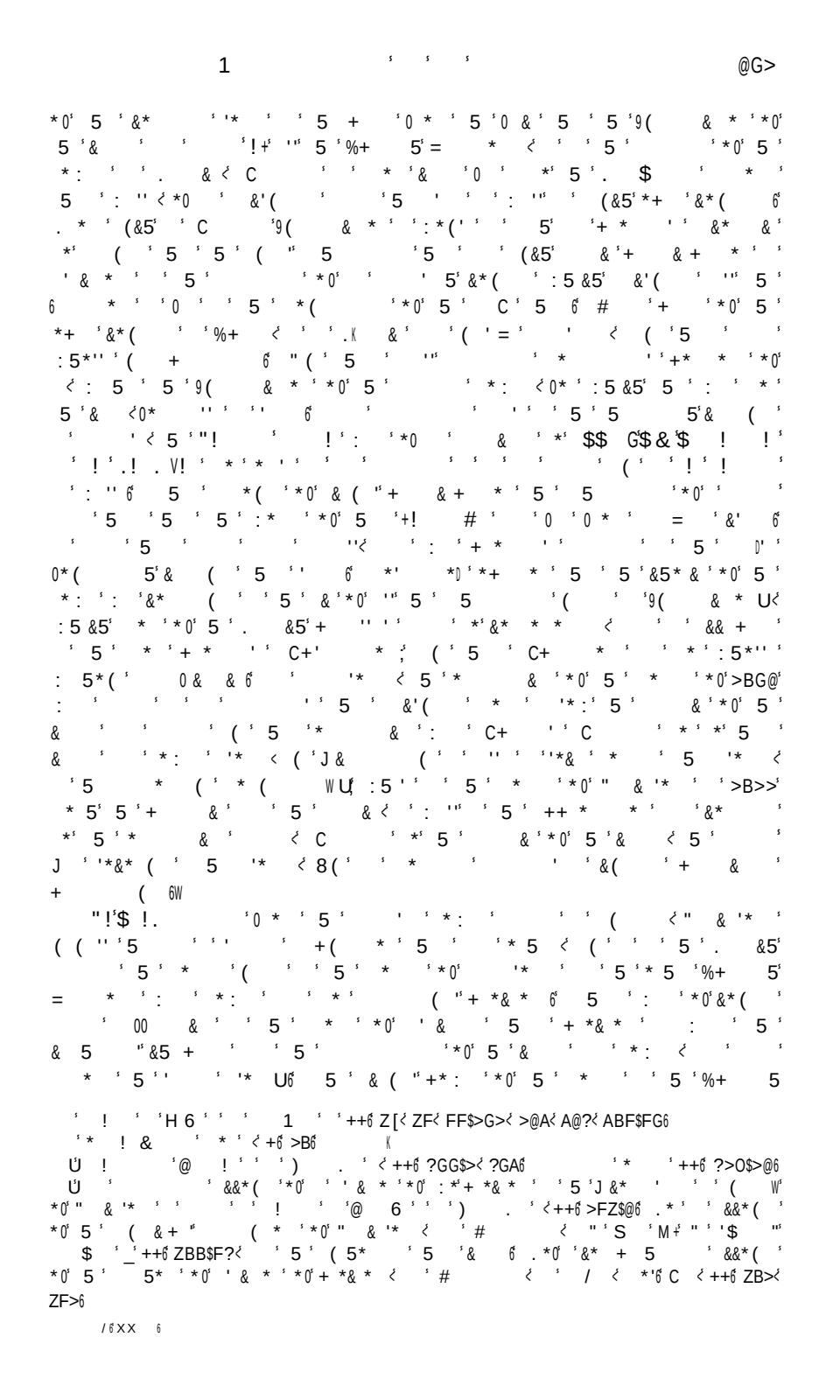

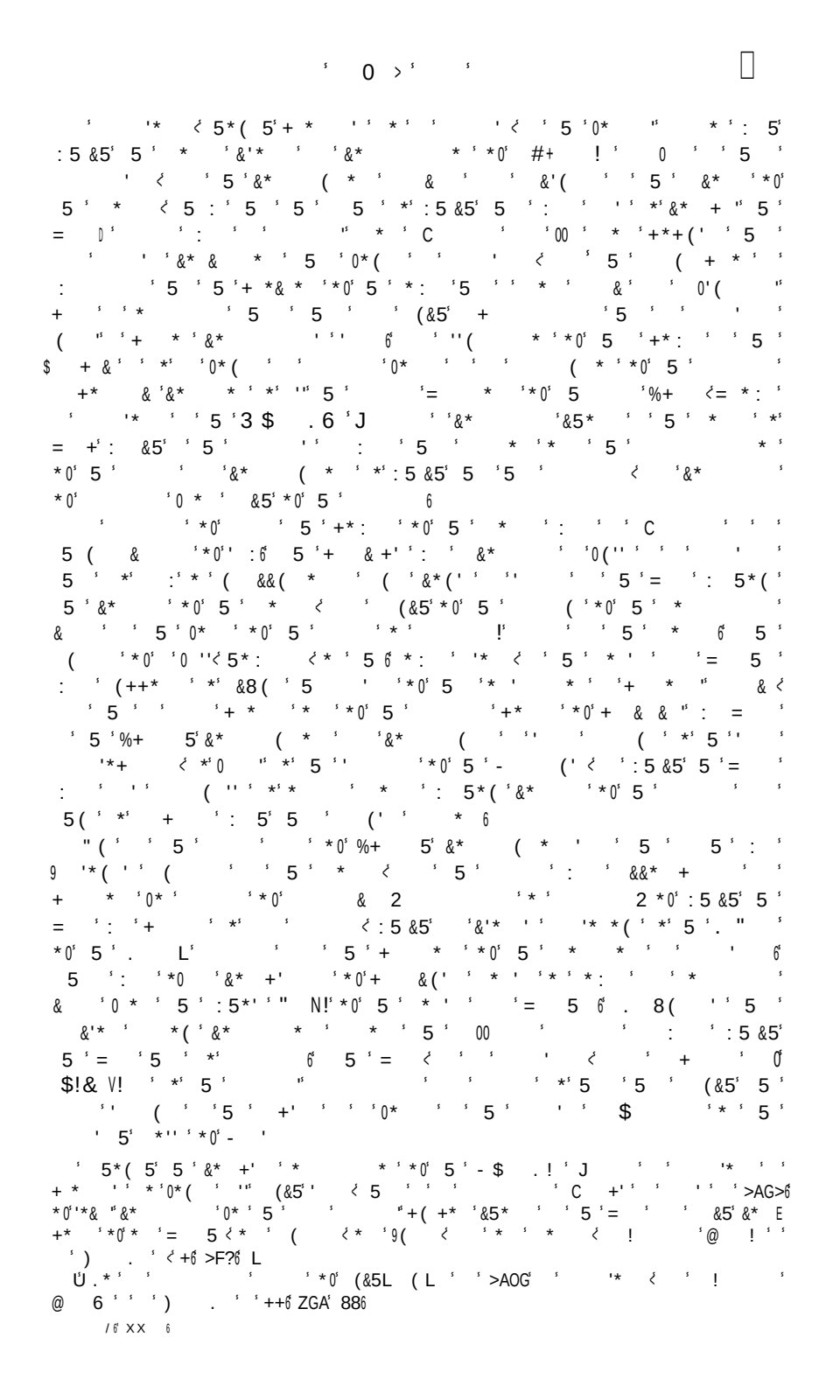

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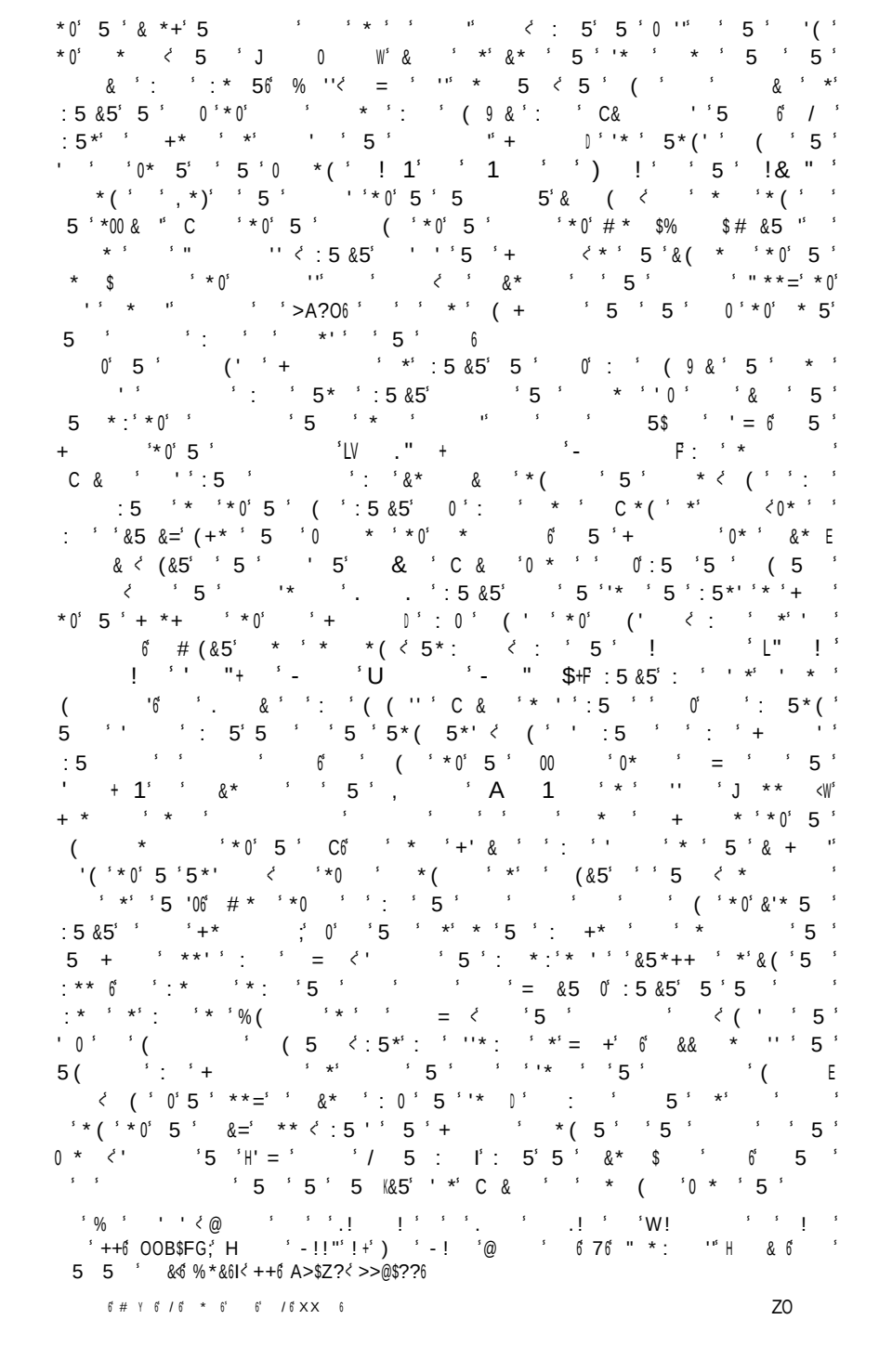

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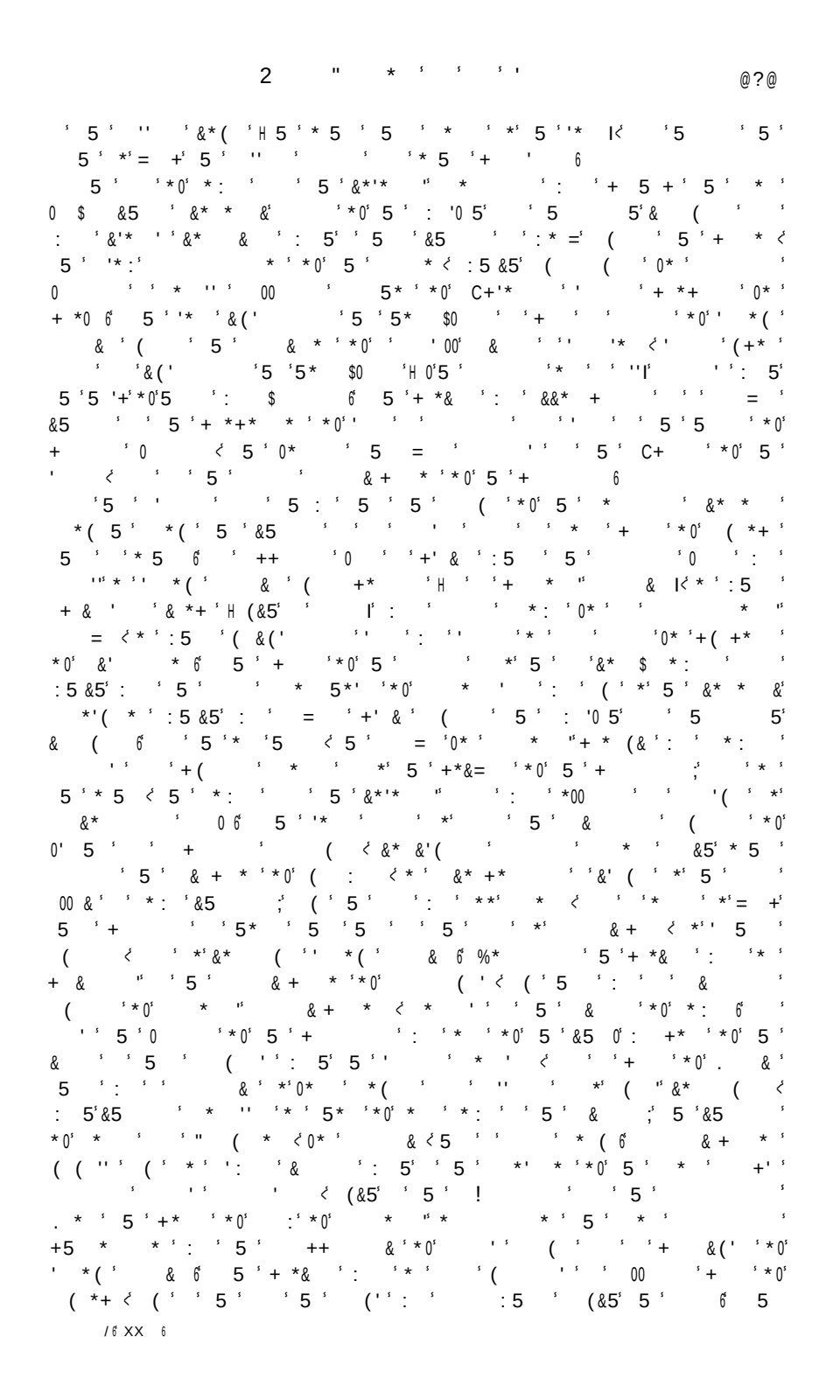

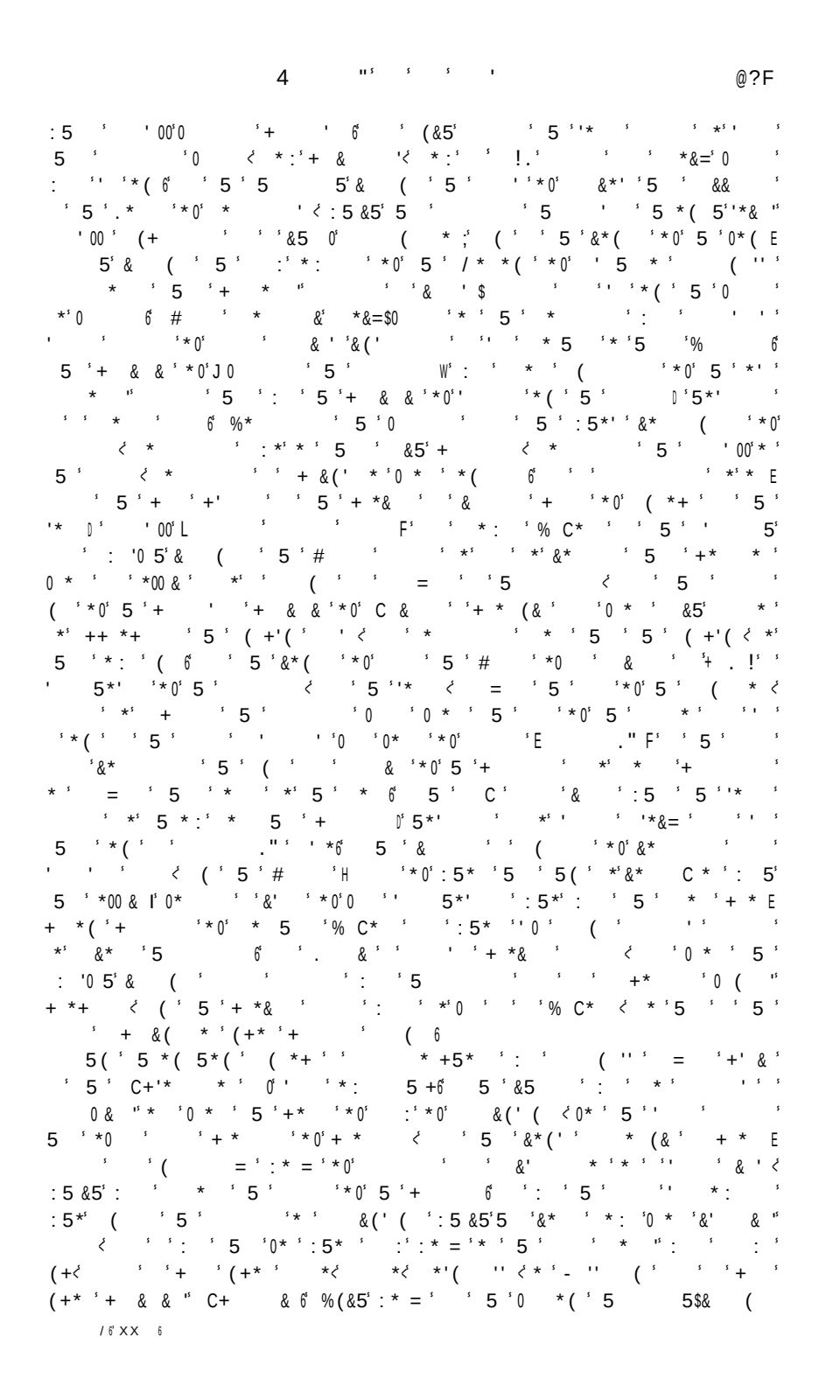

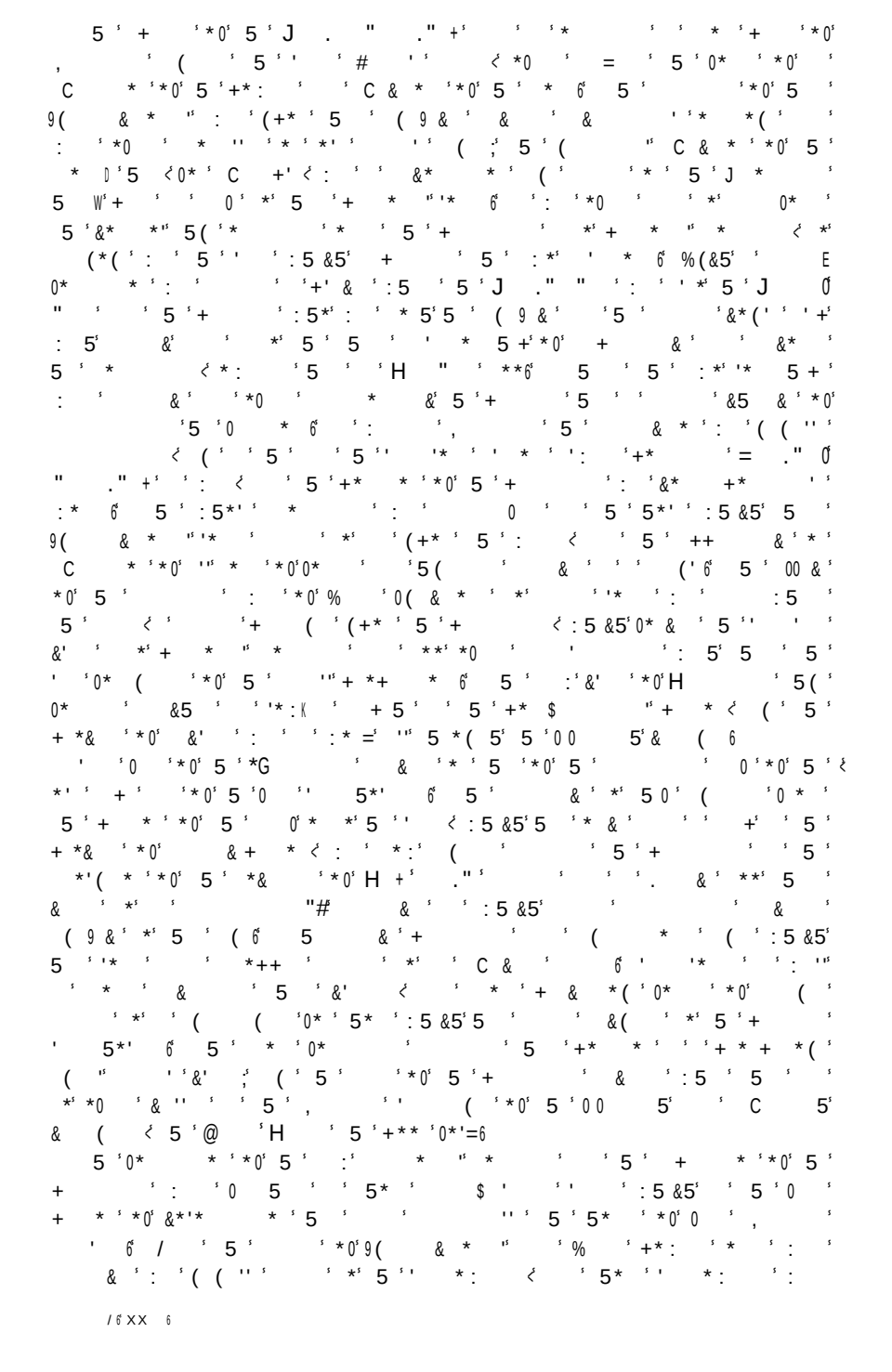

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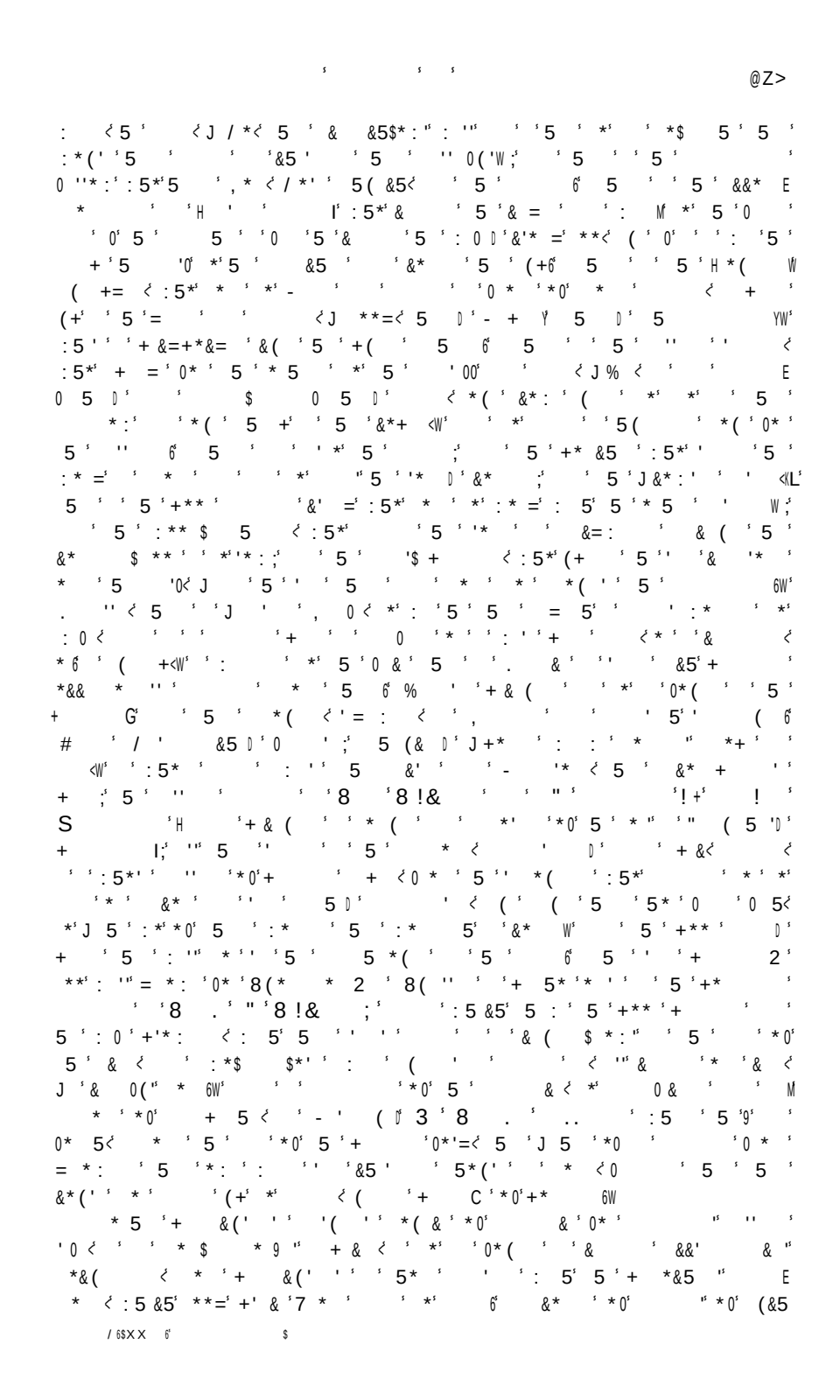

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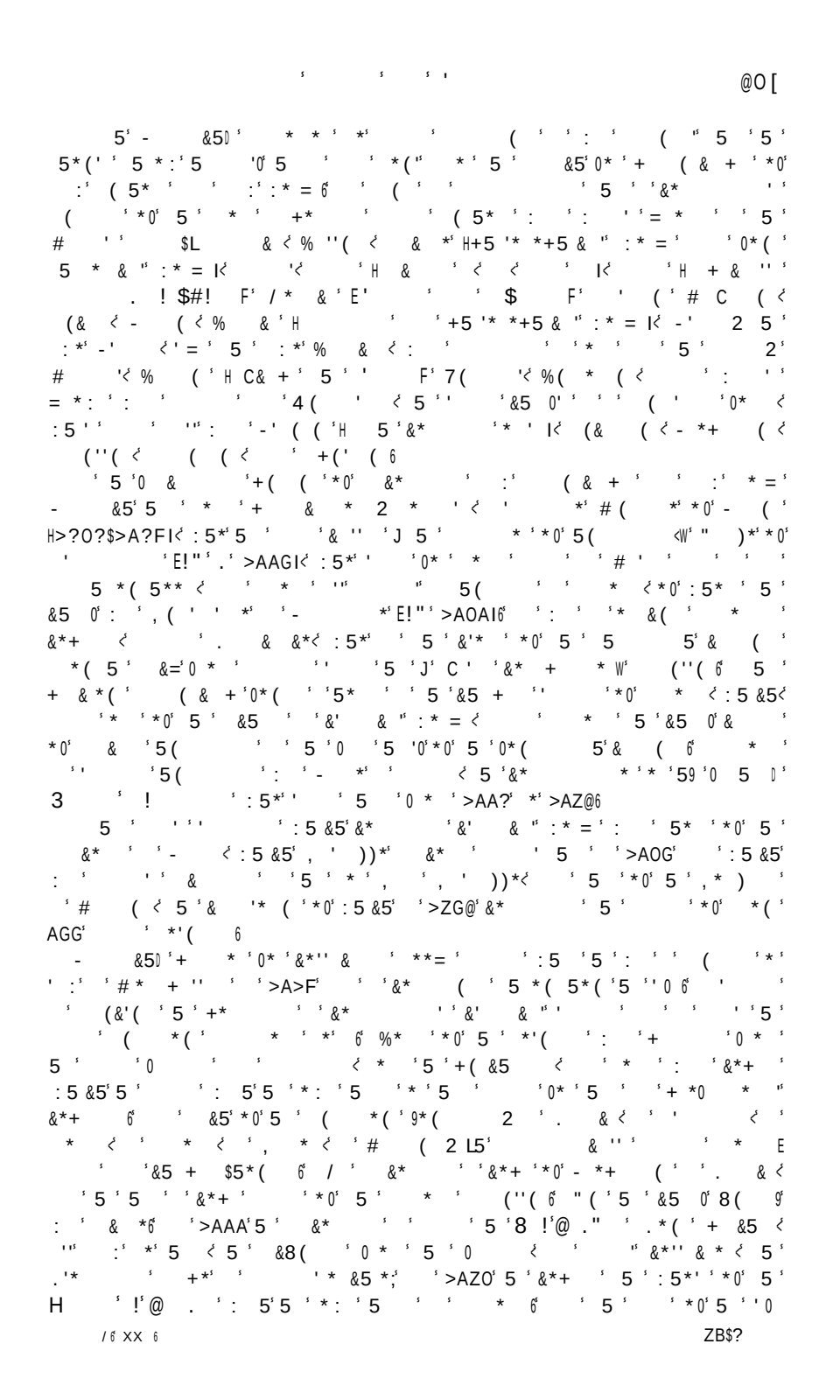

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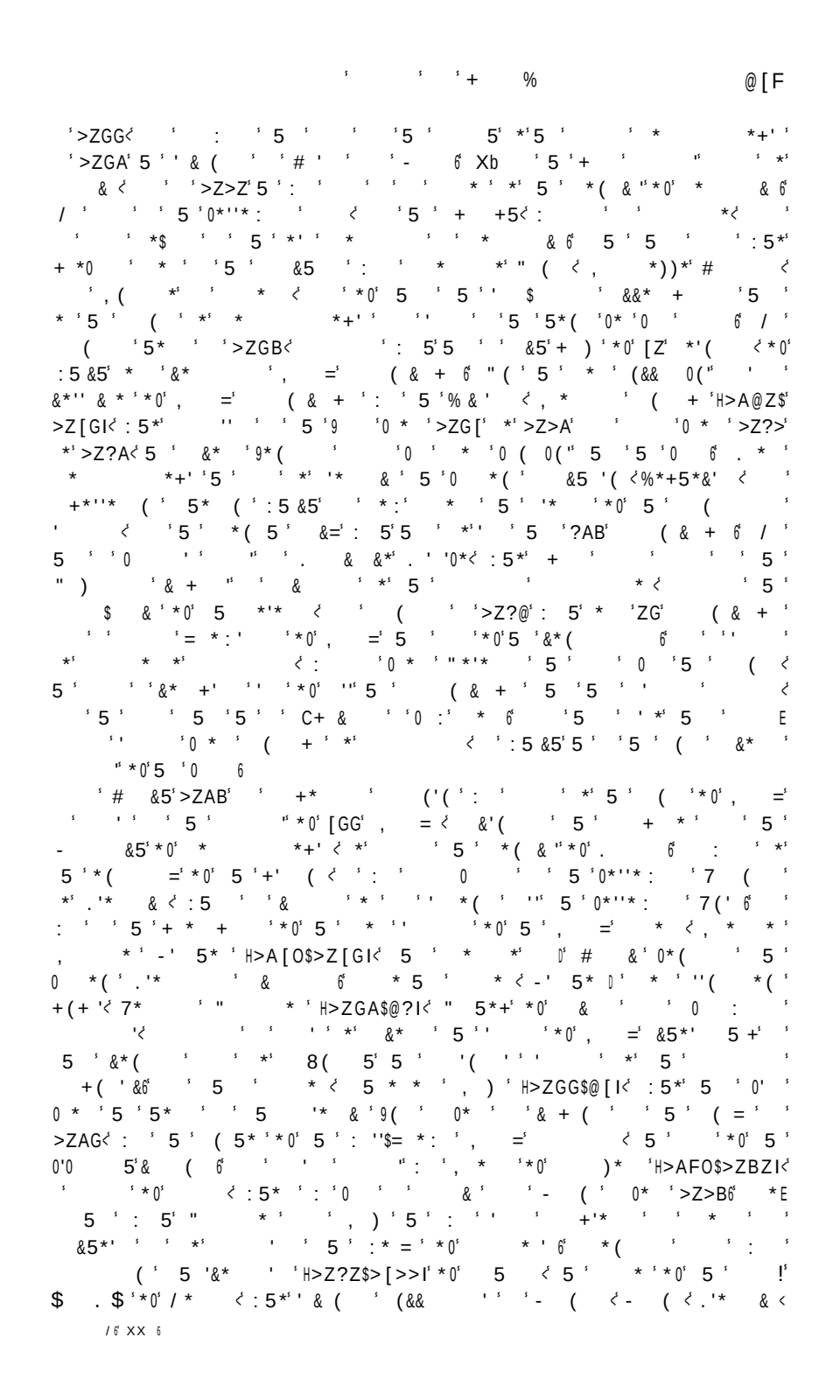

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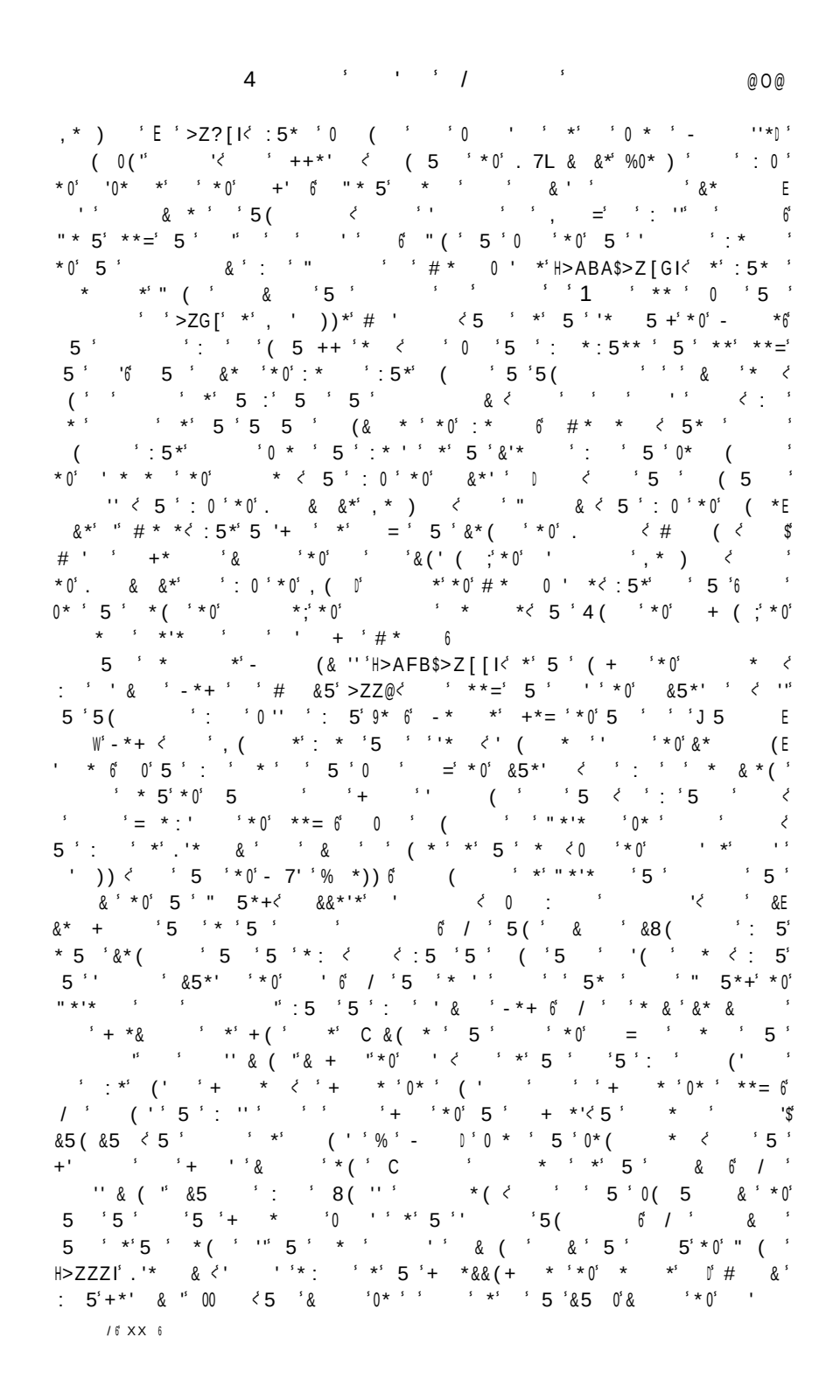

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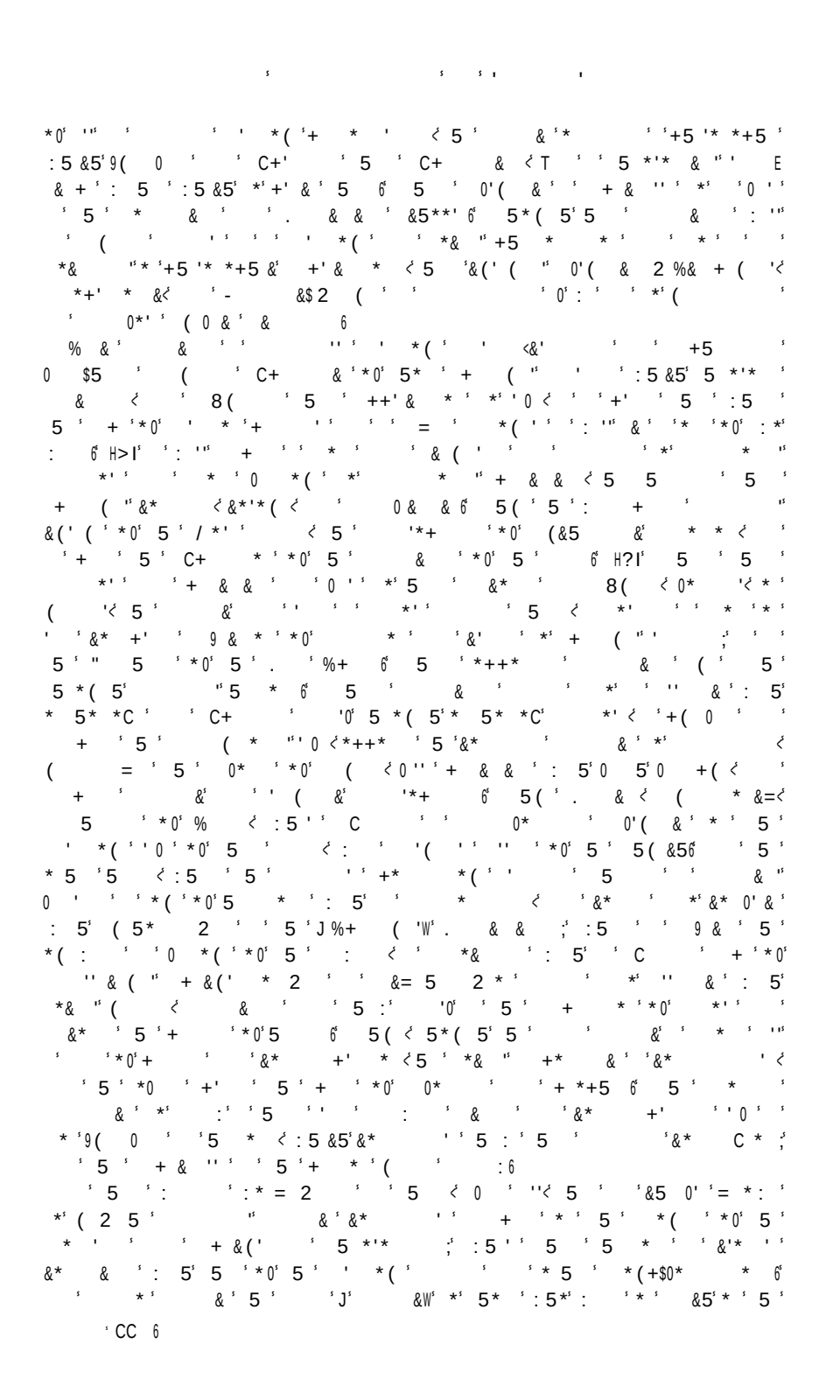

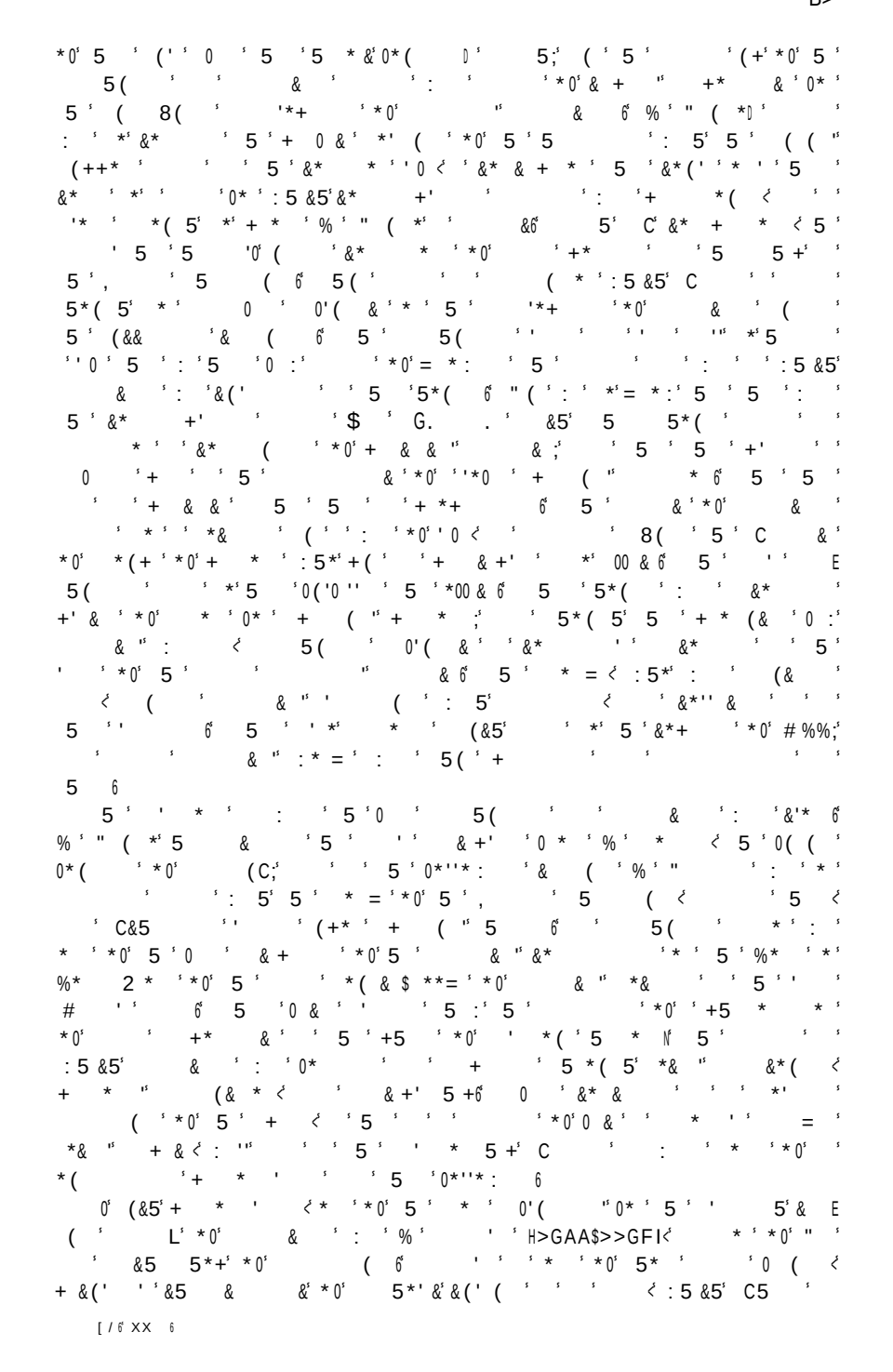

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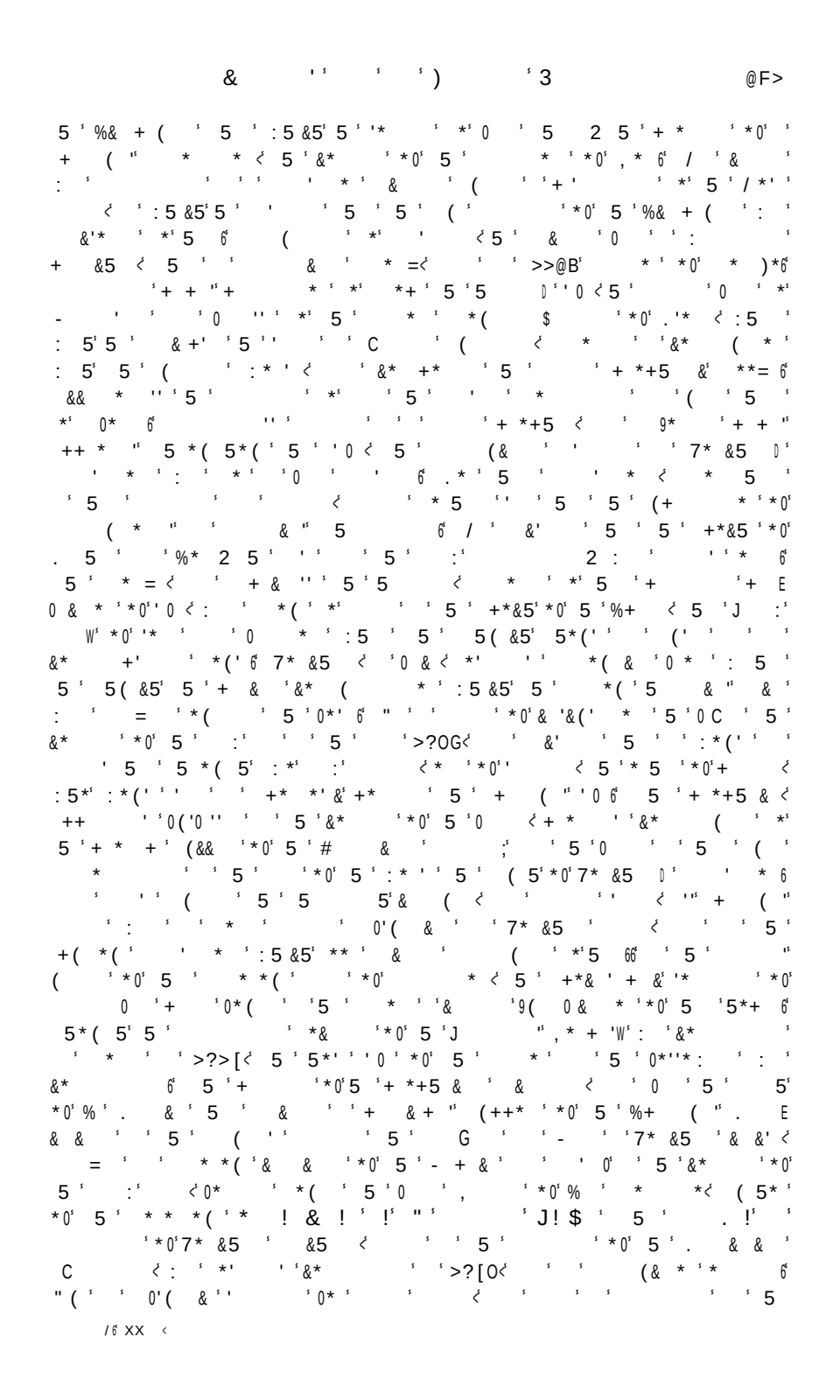

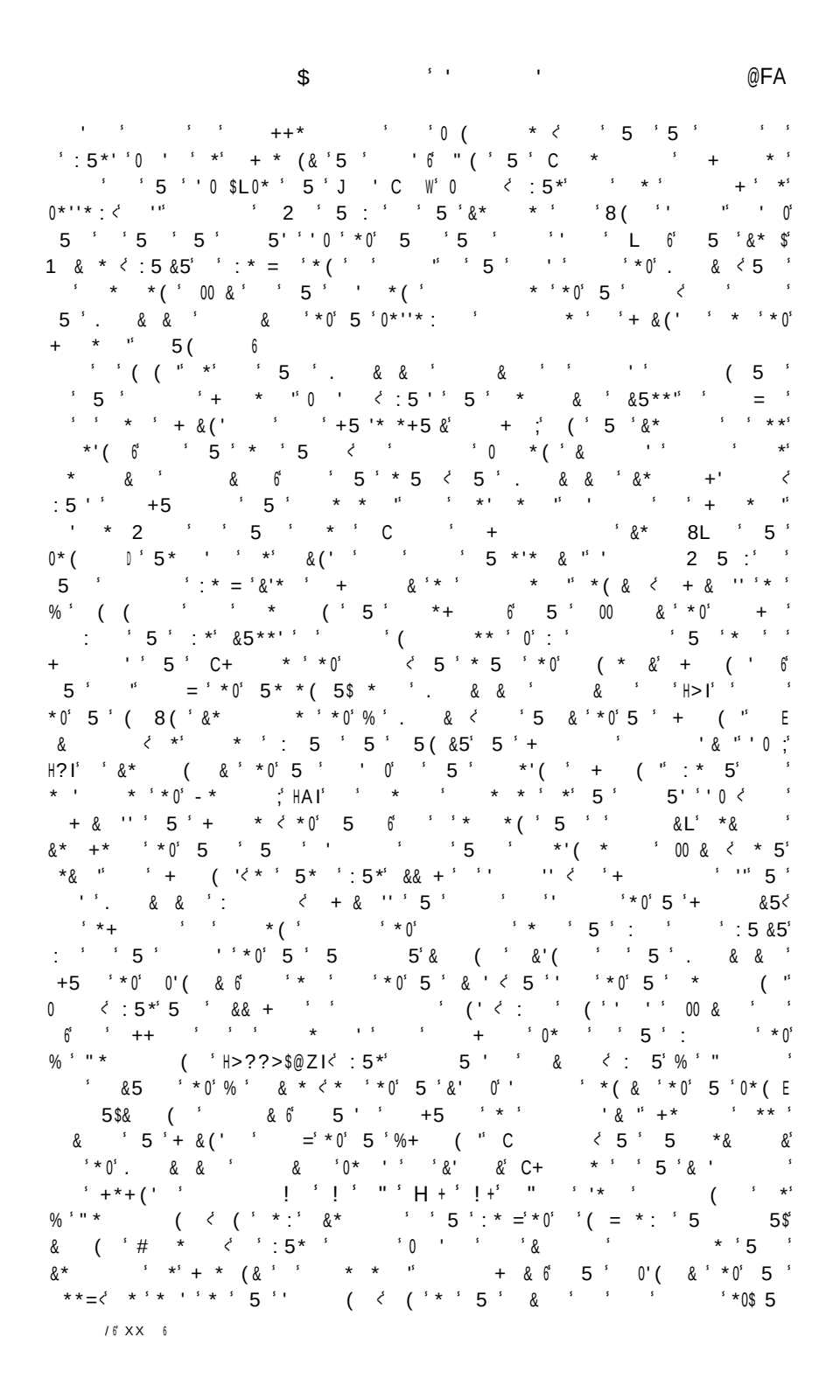

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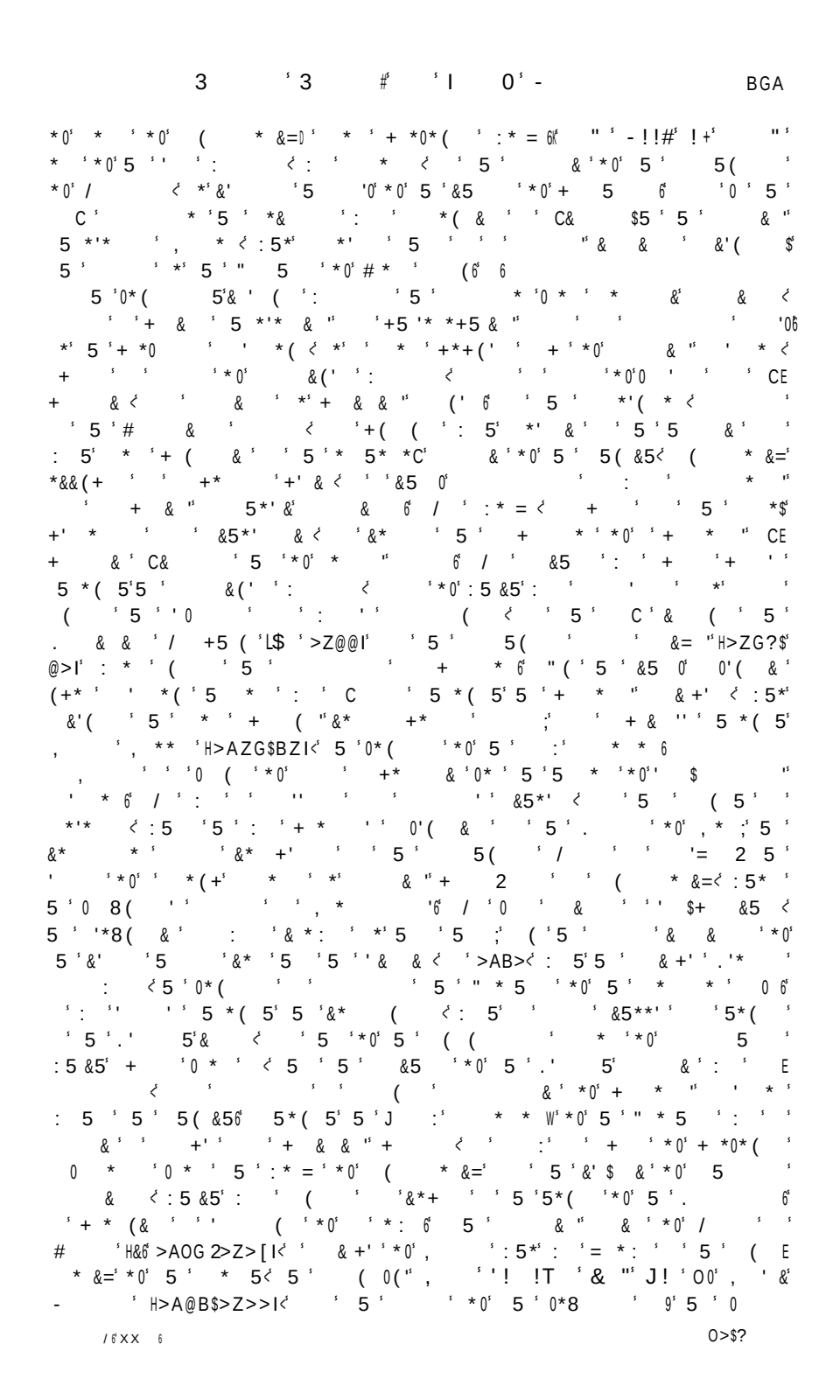

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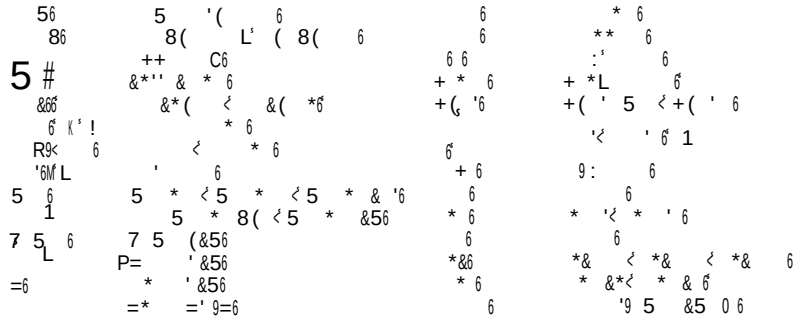

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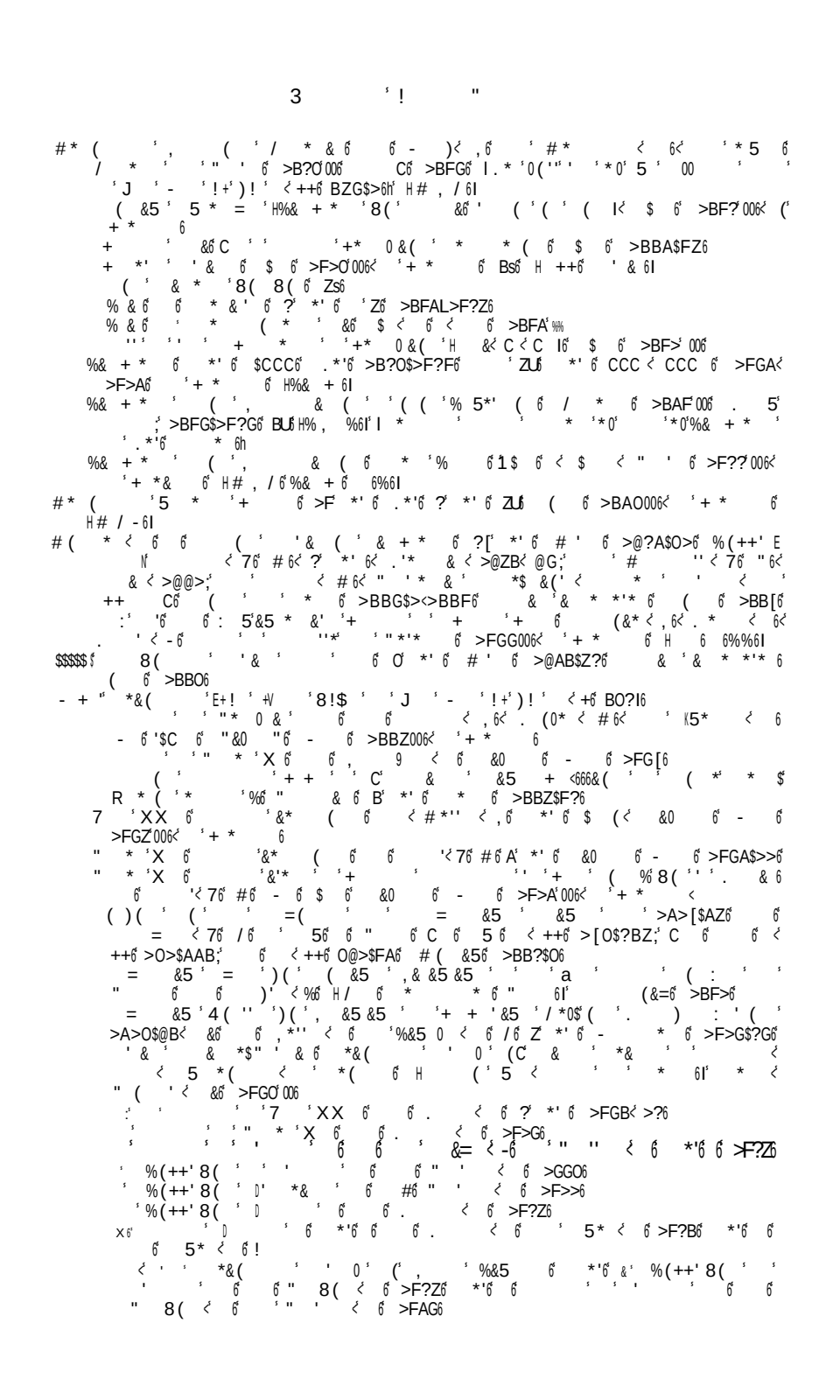

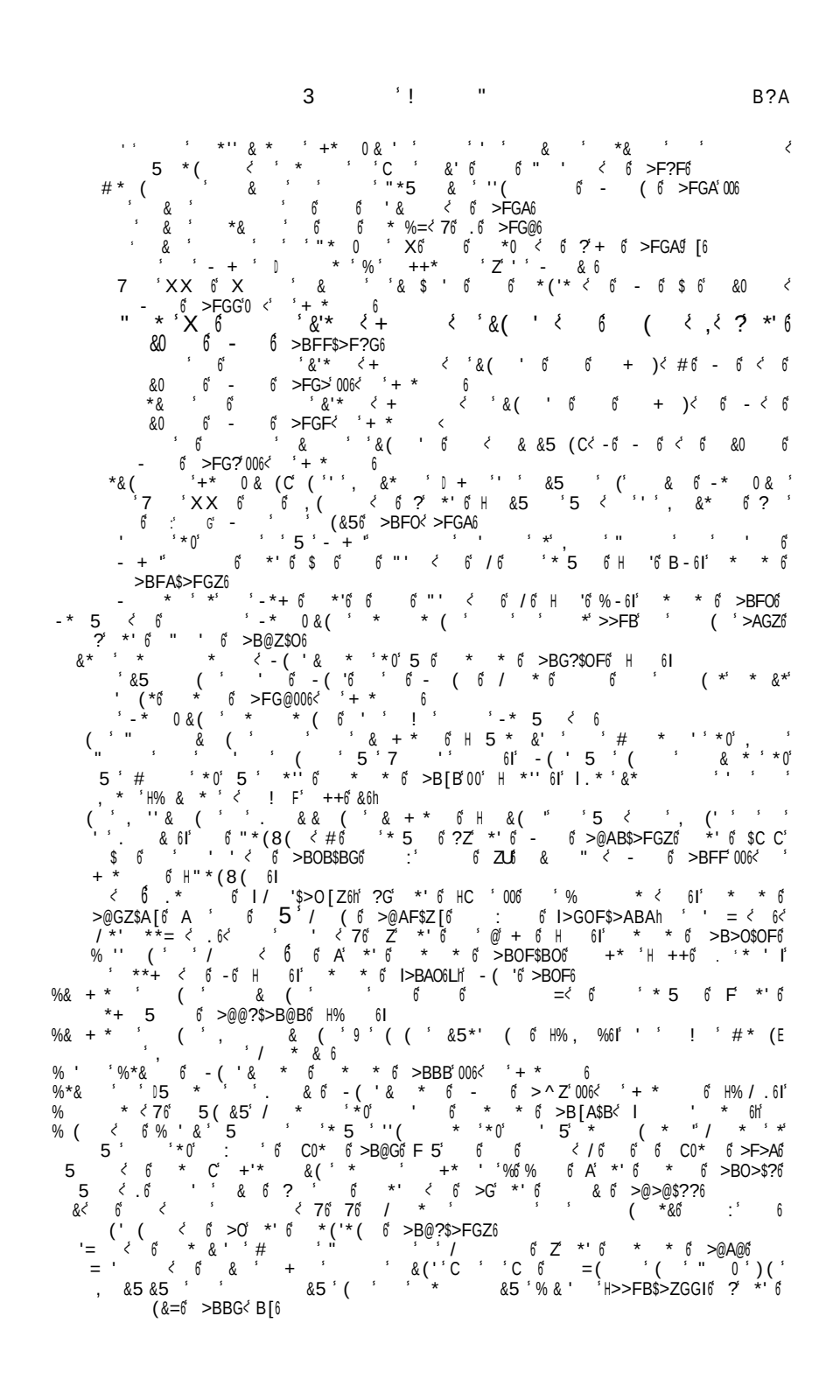

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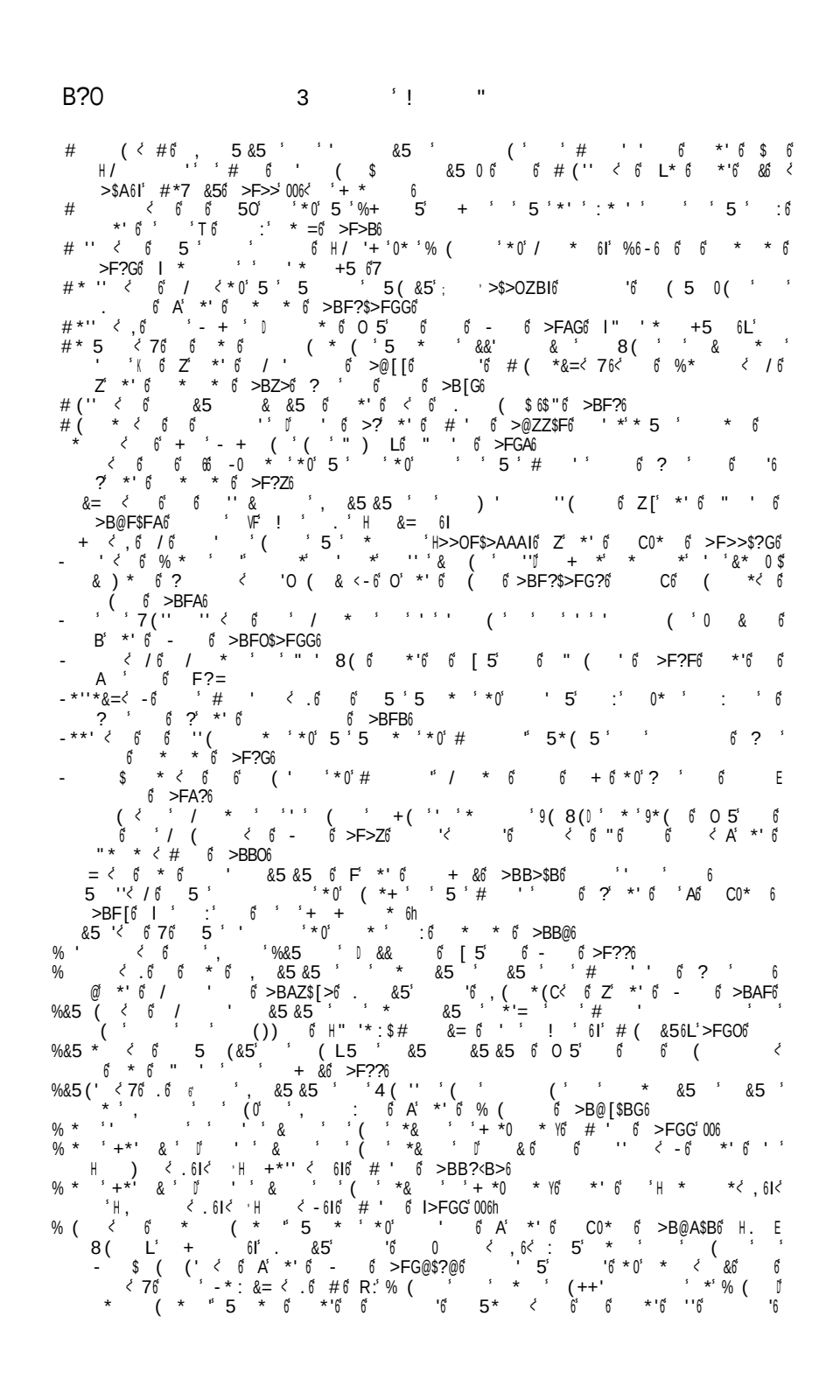

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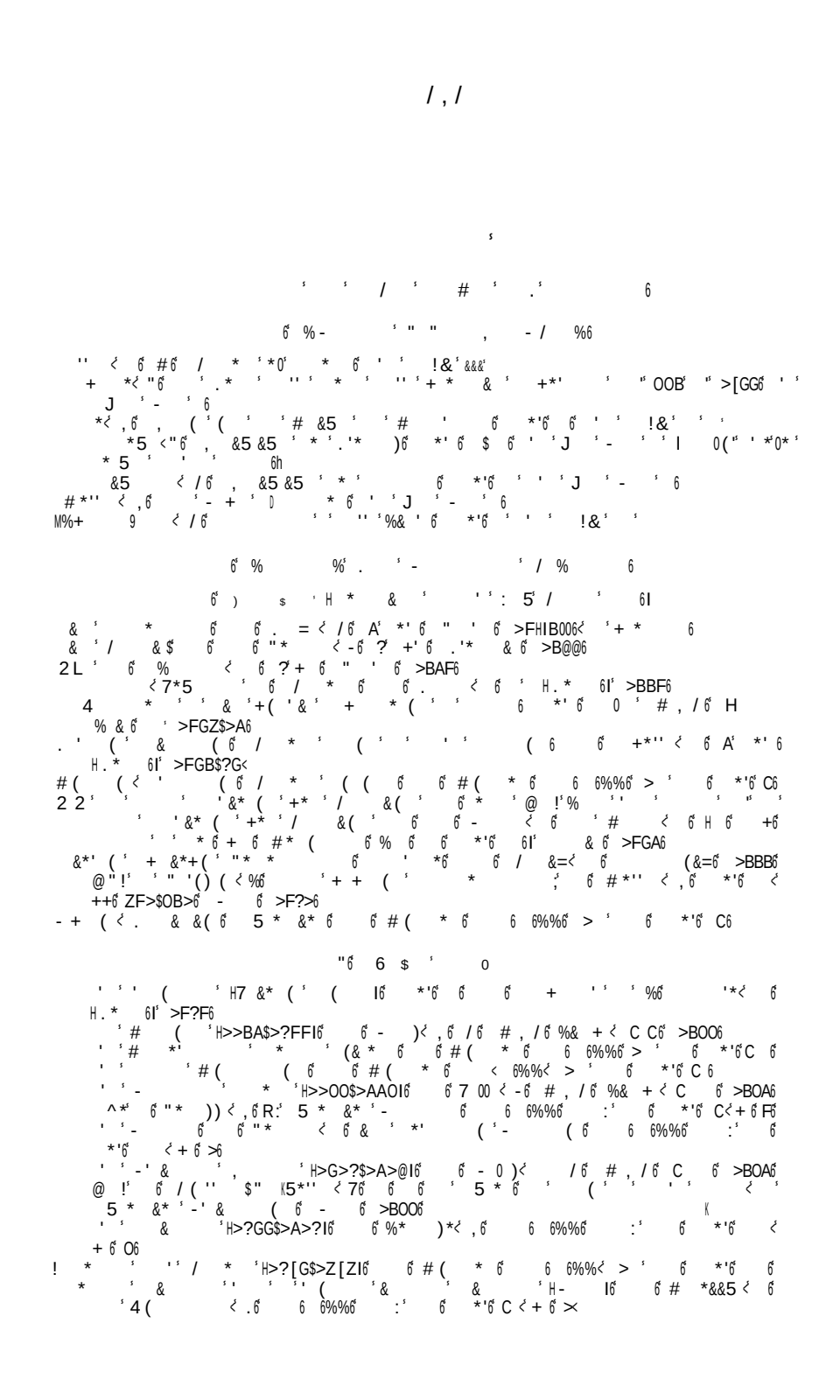

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. '' ' ' >?F? ' >A@B6 - 6 >BB?6
(&= < 76 . 6 6 ' &5 ' ' * ' / (6 , * 5 6 >BOO6
(< 6 - + ' &5 ' &5 0* +' ' '>A' 7 5 5 6 * ' . &5 0 '0 ' / E
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- < 6' ' &5 ' * ' &5' (' *'0' * ' (6 ?' *' 6 + &6 >BOF6
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= (< 6' / ' * ' ' &5 ' ' ' - + ' "* 0)' ' ' 5 '
' T' / '' 6 >FGF6
(< 6 ' . ')(' (*'0 ' '<66 L ' " ((< >?BF6 / '' 6 >FG>6 I 6h
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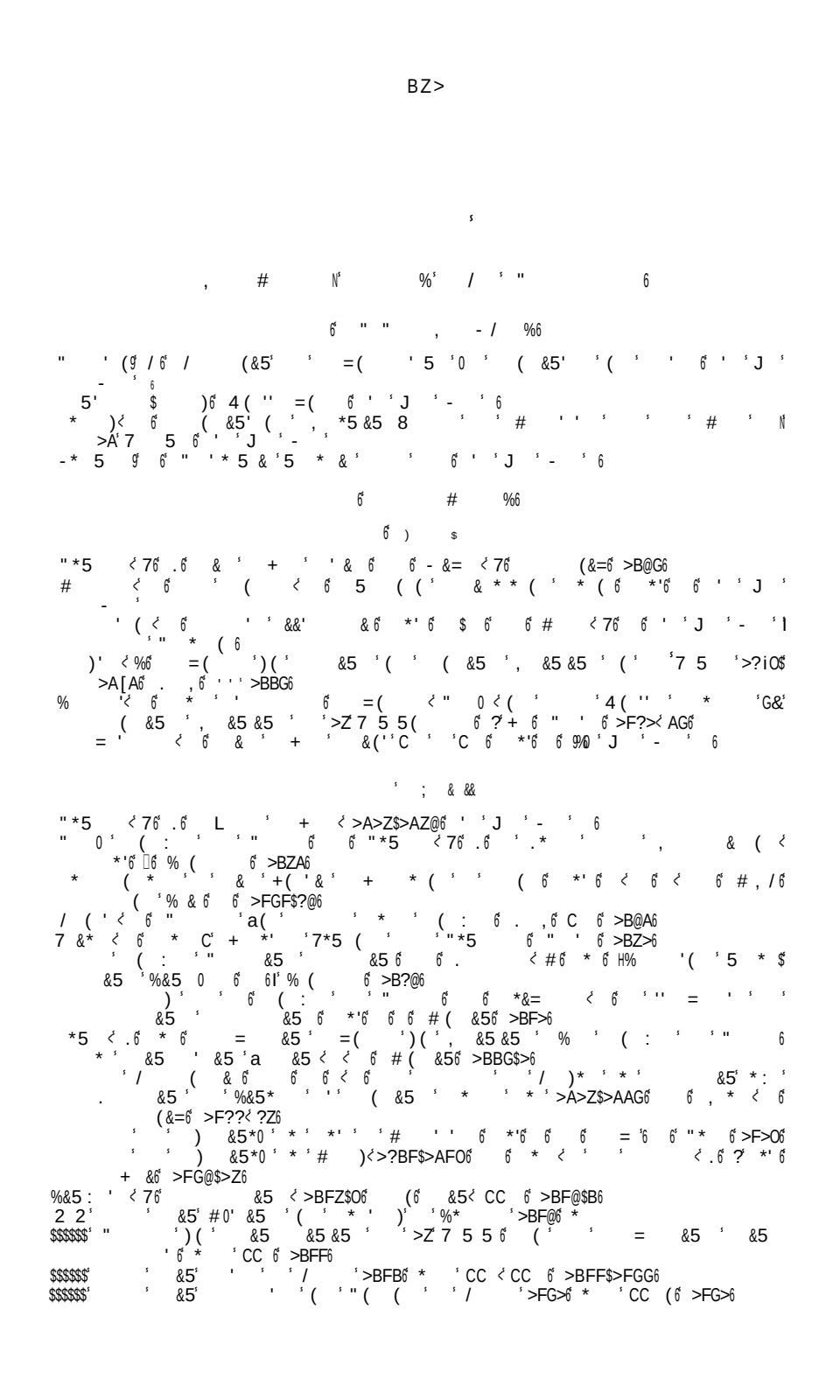

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2 6 ' ' (: ' ' " ' ' . &5' '%&5* ' ' '7 5 '
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)' <%6 ' ' &5 ' &5 ' ' -%+ ')('a ' (: ' ' " 6
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% '&5* : < , 6 ' ' ' / =' " (' (0 ' / (' ' &56 / '' 6
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%&5* < 76 7*5 ' , 0 * ' (C (' (' * ' * ' "*5 6 ?' *' 6 (C E
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%&5 *5 < / 6 ' +0 ' , =* ' (: ' (' . &5' (' ' &5' '
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' &5 ' ' &5' ' ' ' / '0 ' '>Z7 5 5 6 H4 ('' ' (' % ('
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a < / 6 * 6 ') 5' * ' * < , 5' ' . &5 ' ' %&5* ' * '
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'' & (+ + ((0 (7*5 , ' 5(6 6 / 6
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+'* (*' 6 6 # &= 7 "6 %& + (, & (+
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,*' " (''6 & * * a (6 * " (''
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' *' 6 6 - ' &= . 6 &5 = 6 6 - (6 >BZZ6
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* ' * ' Zb + * * = L a &5 a 0 , &5 &5 # 5 (%&5' >BF@6
& (&* * * + * * 5*0' . a% CC , >FGA6
'' # *" ' " '" *' &5" 6
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, * 0 / %6 : (+*' =' ' ' " ' >FGF" I 6H'
/ * / &5 :) * * (&5' " ' >BB?6
/ (/ , &5 &5 /) * (*'0' * * &5" (&=" >BO[6
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) '/ " ' &5 - *' =' ' ' / >A[[$>AOB6 / '' 6 >BBG6 I 6h
$$$$$$ ' &5 - *' =' ' ' / >AZ@$>AOB6 H- * " ' = 6I' >BB[6
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&= / / 6 # &5 +*' =' (6 ' : &5 0 +' ' ' ' 6 (&=/ >F?Z6
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* 6 %9'0 Z *' / (* 5 (0 5(= 6 + *' N %9) =' 5 (0 5(= 5 6 -0 &5(&* 5(06 H 5 & * 7*5 / (5 / (% * 6I HL & : *0' (+ ! 5 5 .6 - ' &=L >B@O6 * 5) &5 / * & : >F>[6h

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* C +'* &(+ *' # * 6 6 "* =L 6 * 5 6 *' 6 $C " *' H" I6 >B[G$FG6 I 5 *'(&* *&(0 * 5 >?FZ$>AFF67
* C + *') &5*0 * - 7*5 * 7) .6 >A@Z$>ABB6 * 5 5 7 6 , 6 . ' >B@@6
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7 =(&< 76 9 % = ' (6 H/ * L*0) &5' (6I - (6 >F?F6
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* * L< 6 *) = '5 ('[= ' >Z >[*' 6 Y N *' / (6 H) &5'
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$$$$$$ a('OGG9 5 ', &5 0 ' '%&5' &5 ' ' 0 ' 'H. &5 0 I6 ,' (6
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* 0 " 6 , - * 0 & (/ ((6 6 ++ < 76 #6 # , / 6 %& + < 6 @ ! 6 %&5 ' < "6 % , %6 A & 6 >F>@6 *' * 0 &=6 5 * & %' * (H>>@?$>?GFI6 6 ++ < 76 #6 # , / 6 %& + 6 x x 6 * % , %6 >BOB6 " &5 =((&56 6 5 &=< 6 6 " ++ < 6 * 6 *' 6 $ H$>ZAAI6 " 6 >BOA$FA6 " ' (=((&56 6 * < , 6 6 6 6 " ' (6 >B@G6 5 * = (&5 % * >Z ' >O 7 5 5 < H / 6 * * " 61 + &6 >BO?$>F>@6 5 0 * ' ' : + / * : & ' (; " H>?@@$>ZFFI6 *' 6 C $C 6 * (H@[G$>[[GI6 *'6 CC6 (&=' H>>G[$>ZB?I6 *' 6 C X< CC < CC $CCC 6 # (; 4 ' BC >[[OI6 *' 6 0 CC 6 %* H>Z>@$[FI6 *' 6 CC CCC 6 * C +'* &((& 6 6 6 =((&5 % (&=6 >> *' H 0 (&= &5 , &5 &5 61 (&=6 >BZA006 * (=((&56 *' 6 < < 6 < 6 * < 6; 6 H$>Z>GI< 6 ('< 6 * (6 >BB> 006 < 6 &=) < , 6 4 (') (, &5 &5 % *' 6 O *' 6 *'* 6 >BOG$@F6 / * (< 6 / *5' (< 6 / =* *) (" $: + 6 $) &5 = (6 / (6 >B@[6 / (&5 5 * = &5 &5 %+ &5 6 6 ++ < 76 #6 Z + 6 / (6 >B[?$O>6 / (&5 =((&56 6 ++ < 76 #6 *'6 H$>AGGI6 / (6 >BZ?6 I *' * '+ ('6h / &5 , &5 &5 8 ('' 6 H 0 (/ &5 , &5 &5 61 . * 6 6 0 ($ (&5 % % ' (6 6 . &= < 6 / '' 6 >B@[6 6 5 ' % 6 6 (''< . 6 / '' 6 >B@[6 / 6 * (% ((' 6 6 . (* 00< . 6 / '' 6 >BB?6 6 " (&5 &= &5 * ((0 %&5* 6 6 %&5 0 < 6 / '' 6 >BB@6 6 ' a*'' (&5 (4 ((6 K6 % < 6 / '' 6 >BB@6 6 / = (' < >?@?$>Z>?6 6 ( ) < 6 / '' 6 >BF>6 6 " &5 (= 5 &5 , &5 0 &5 #* = (' >OGA6 6 " ' &= < 6 / '' 6 >BFZ6

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(*00< 6< &6 '6 >B[?$@A;' 6 >BB>$>F>Z6
&=' (&5 ' =((&56 6 ' '0 ' # &=' (&5 ' , &5 &5 '
(' ' (=(6 ?Z' *' 6 %&5 : 6 >BOA' f.6
*'' : *< 6 ' / '((&5' * ' / ' ('7*5 ' * 6 + &6
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' &5 ' = ' (' =(')(' , &5 &5 ' ' / 6 6 / += < 6
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-* &5 ' =((&56 6 ' + < 6 ' * 5 6 H 6 % &5 ')('
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6 - *)'% &5 6 CC $CC 6' / 6' * * ' 6 - *)'% &5 6l' / '' 6
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>AO@$BO6 H +) ' % (' (' ', ' ', &56 < >6l' + && >BFZ6
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- * &)) = < #6 ' &) &5'7)&)(=* : &5' : '- (& 6 * ') =' :)6 6 :6 >B?[$O6
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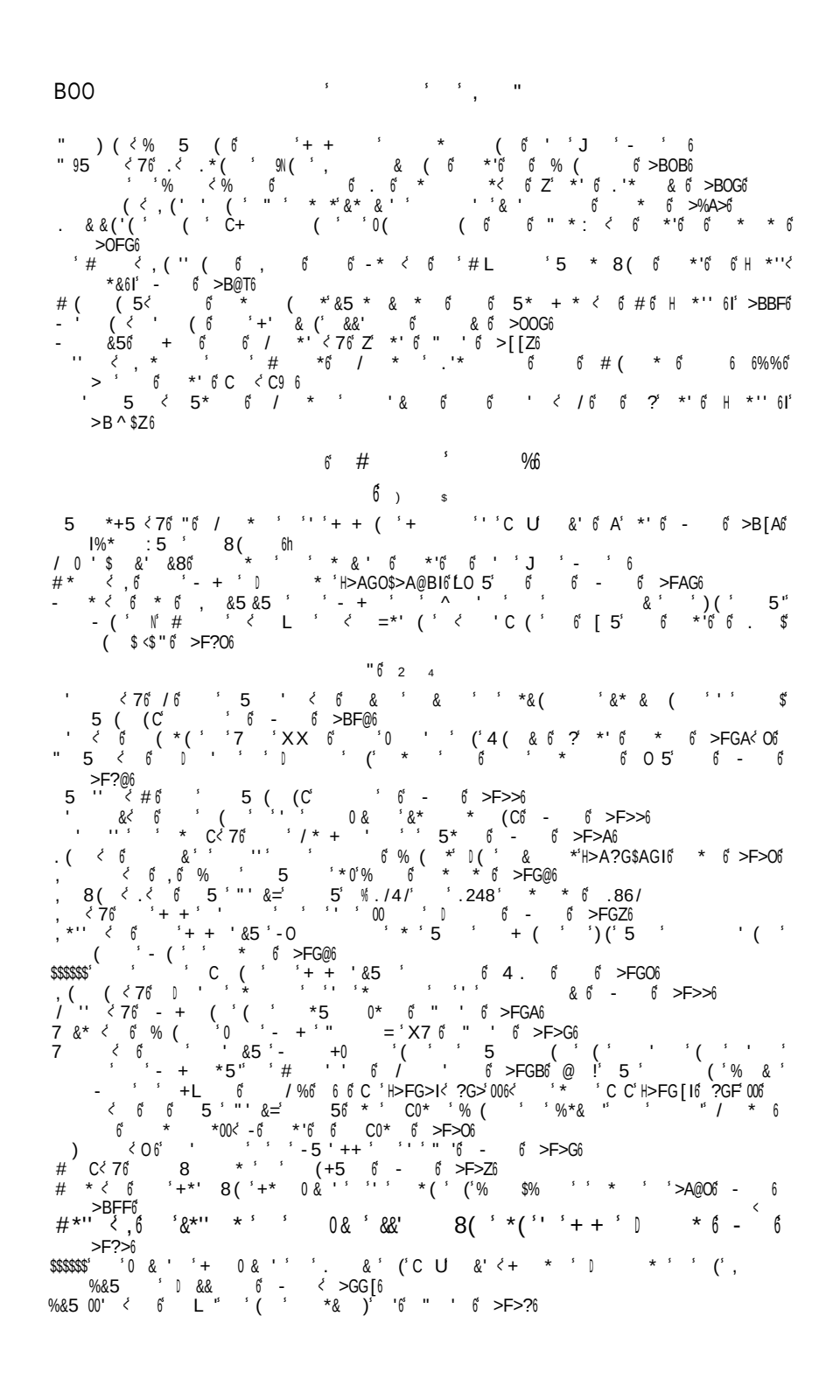

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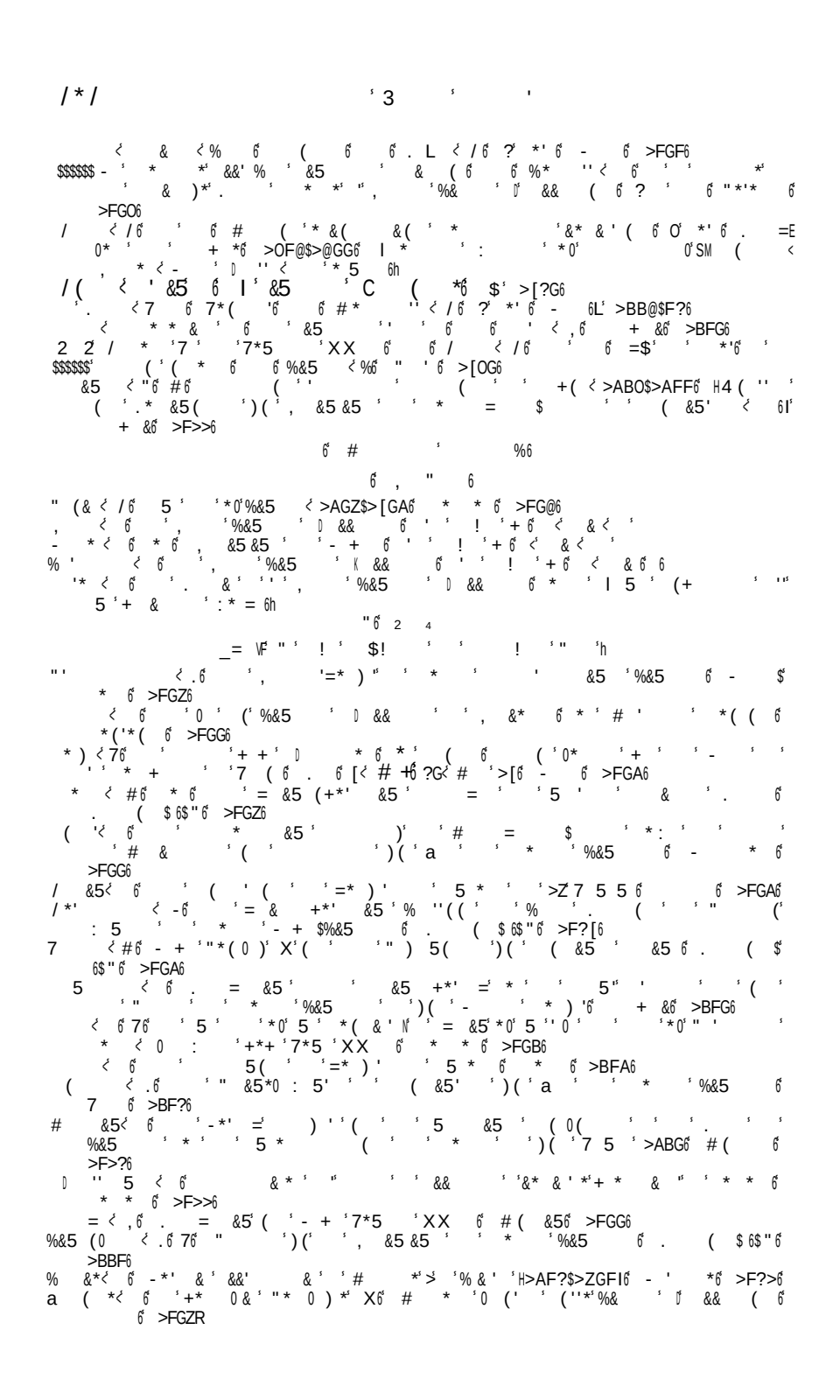

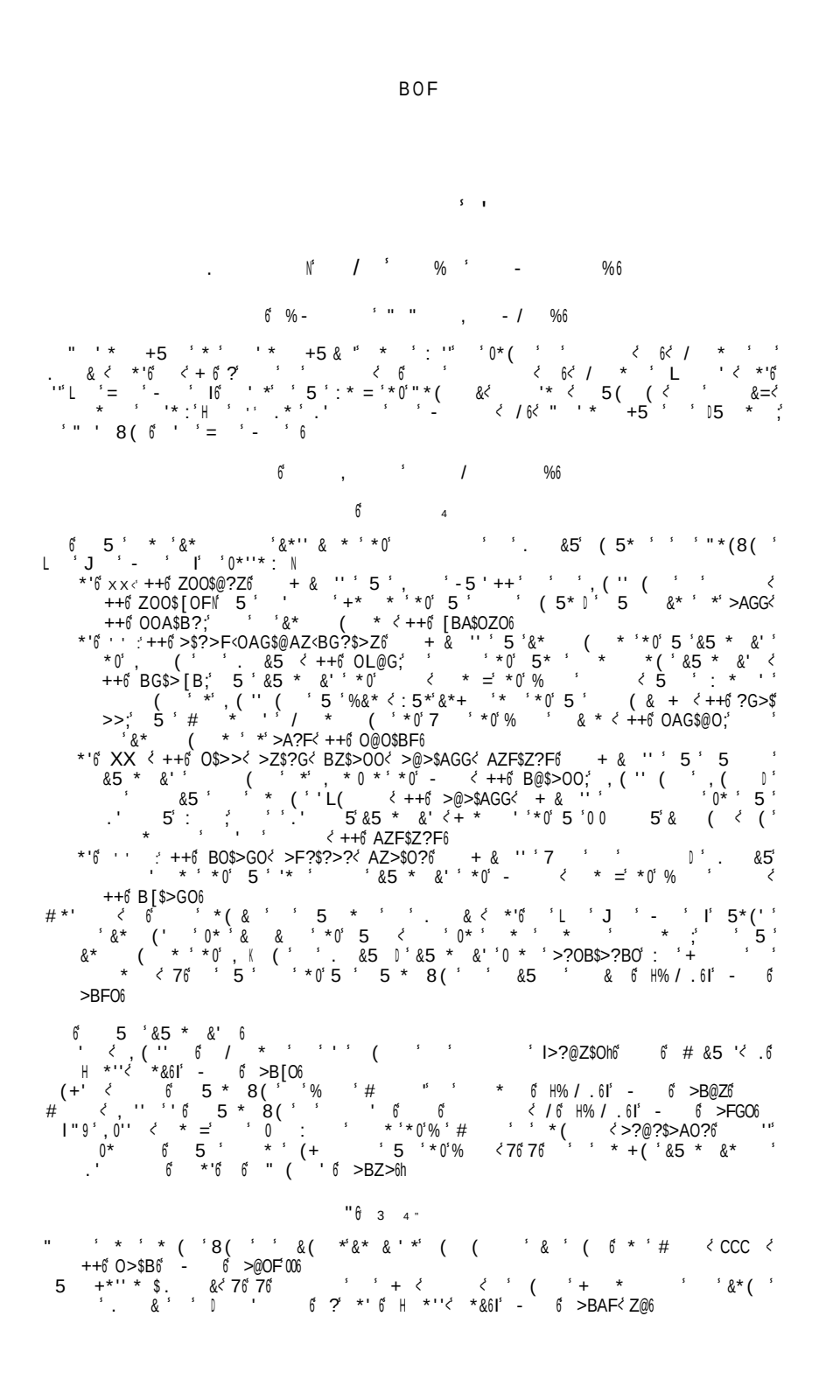

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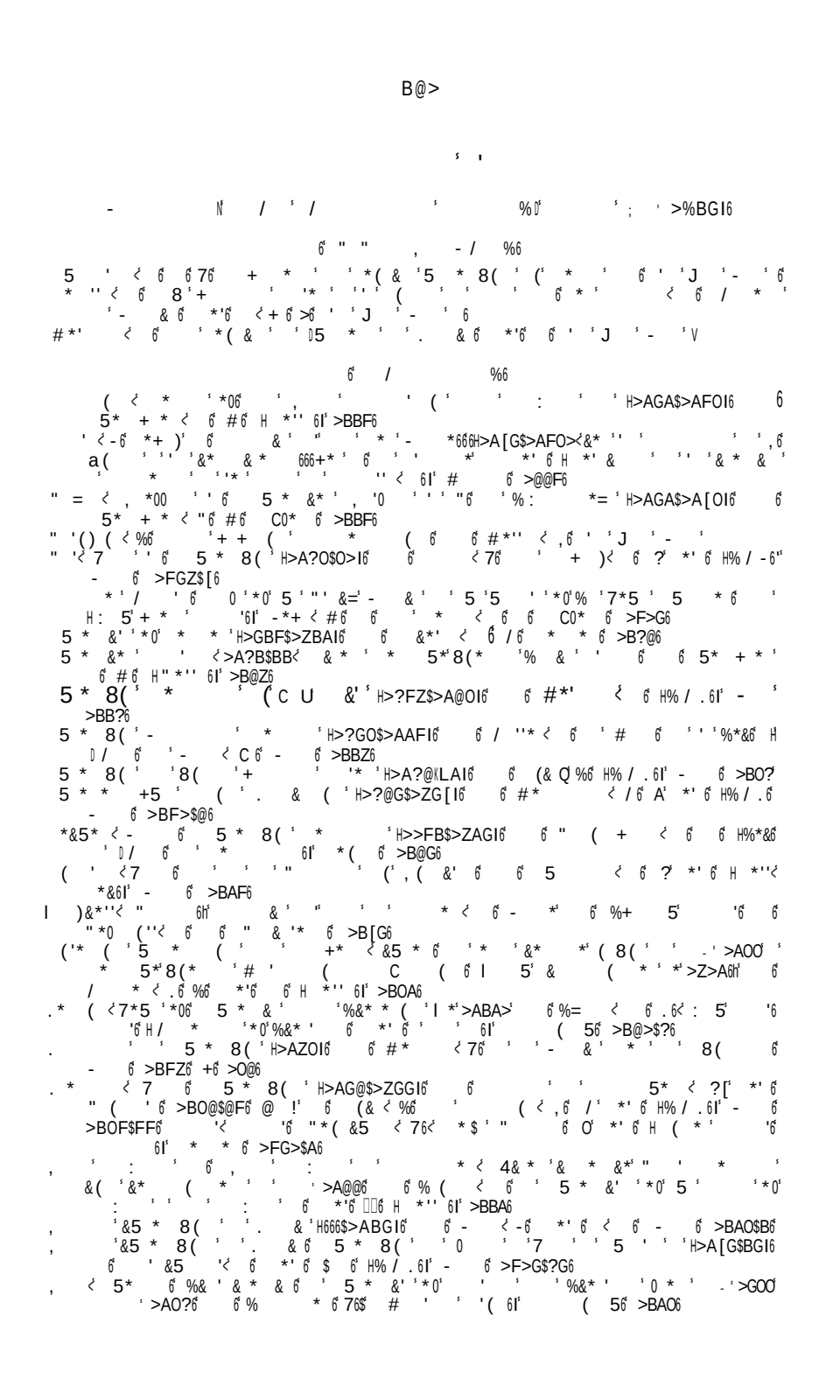

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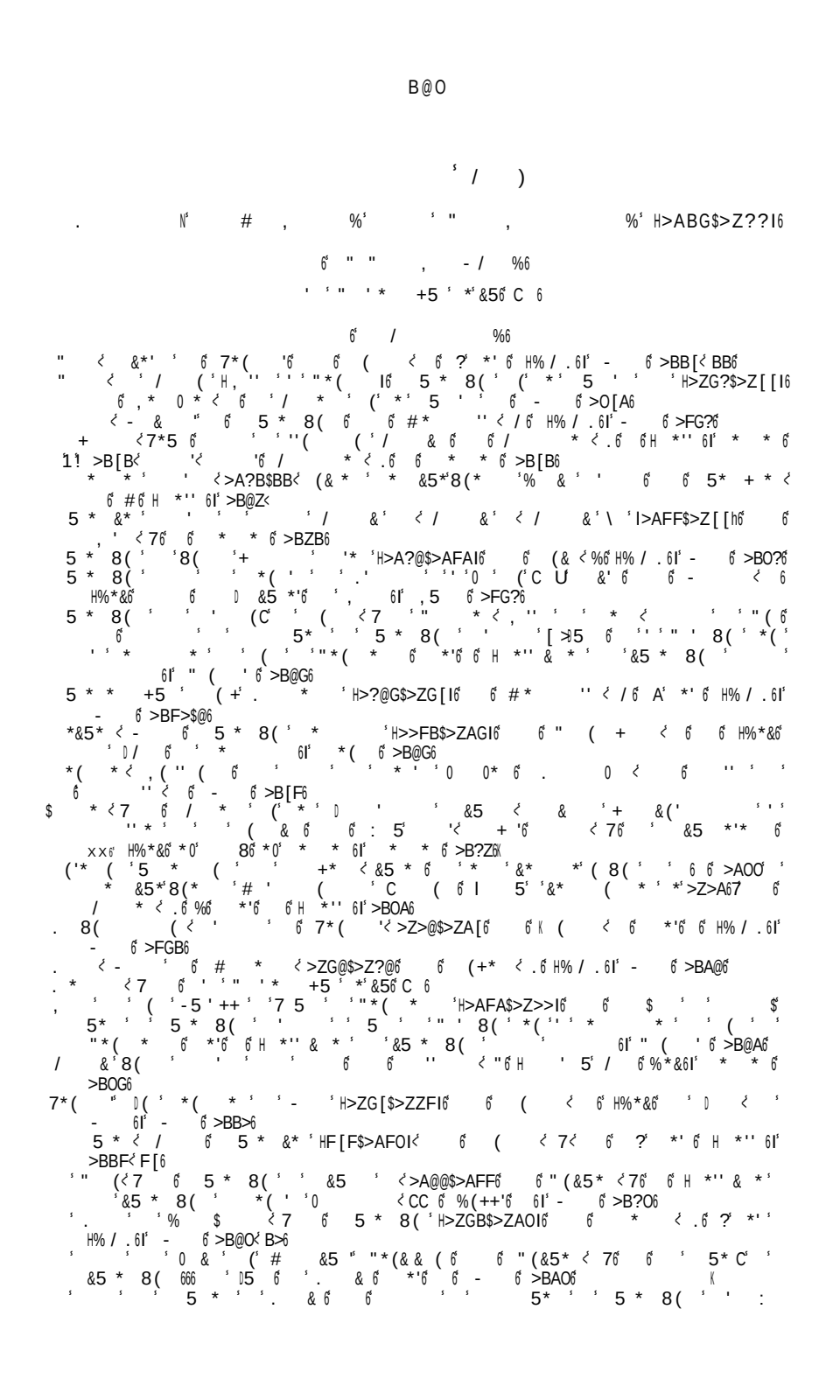

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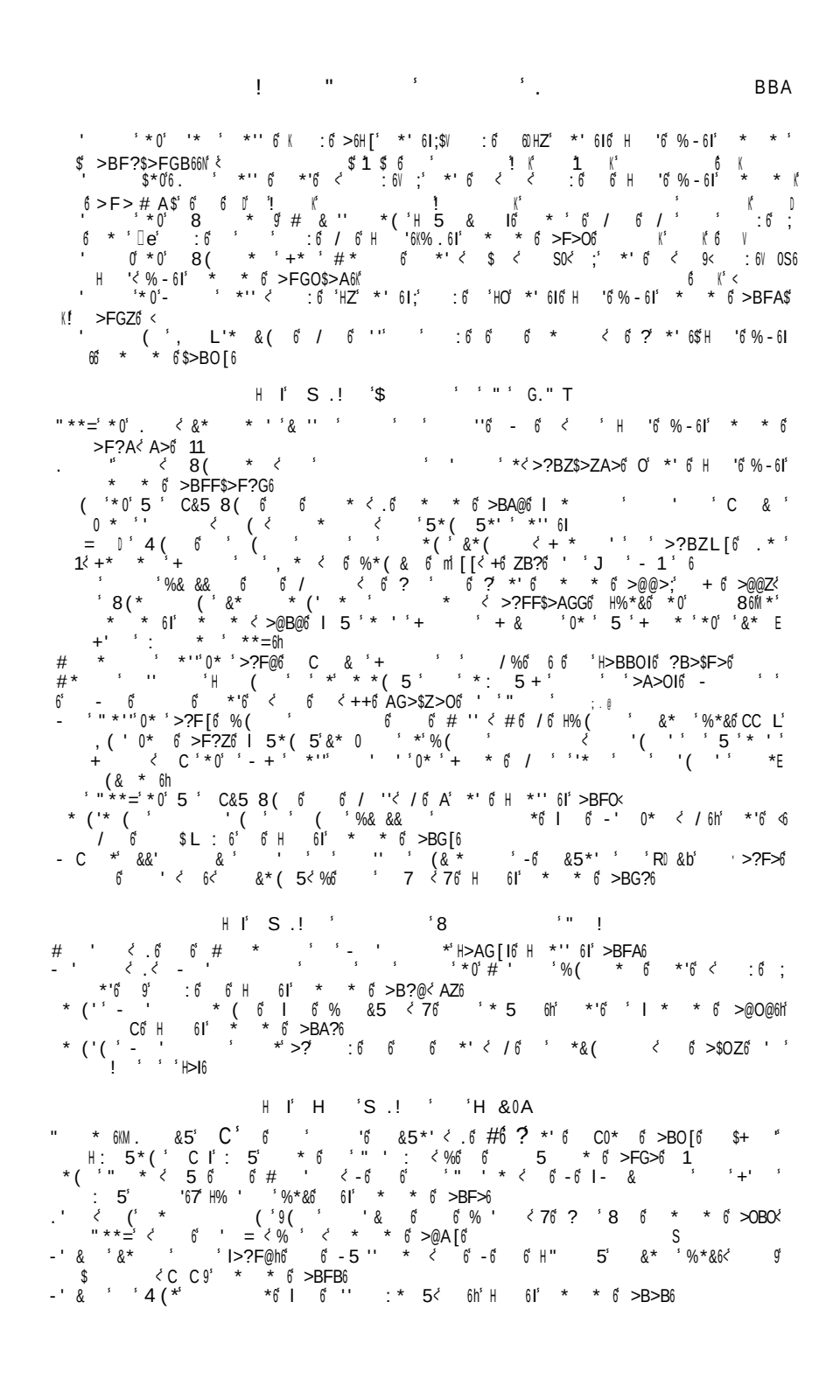

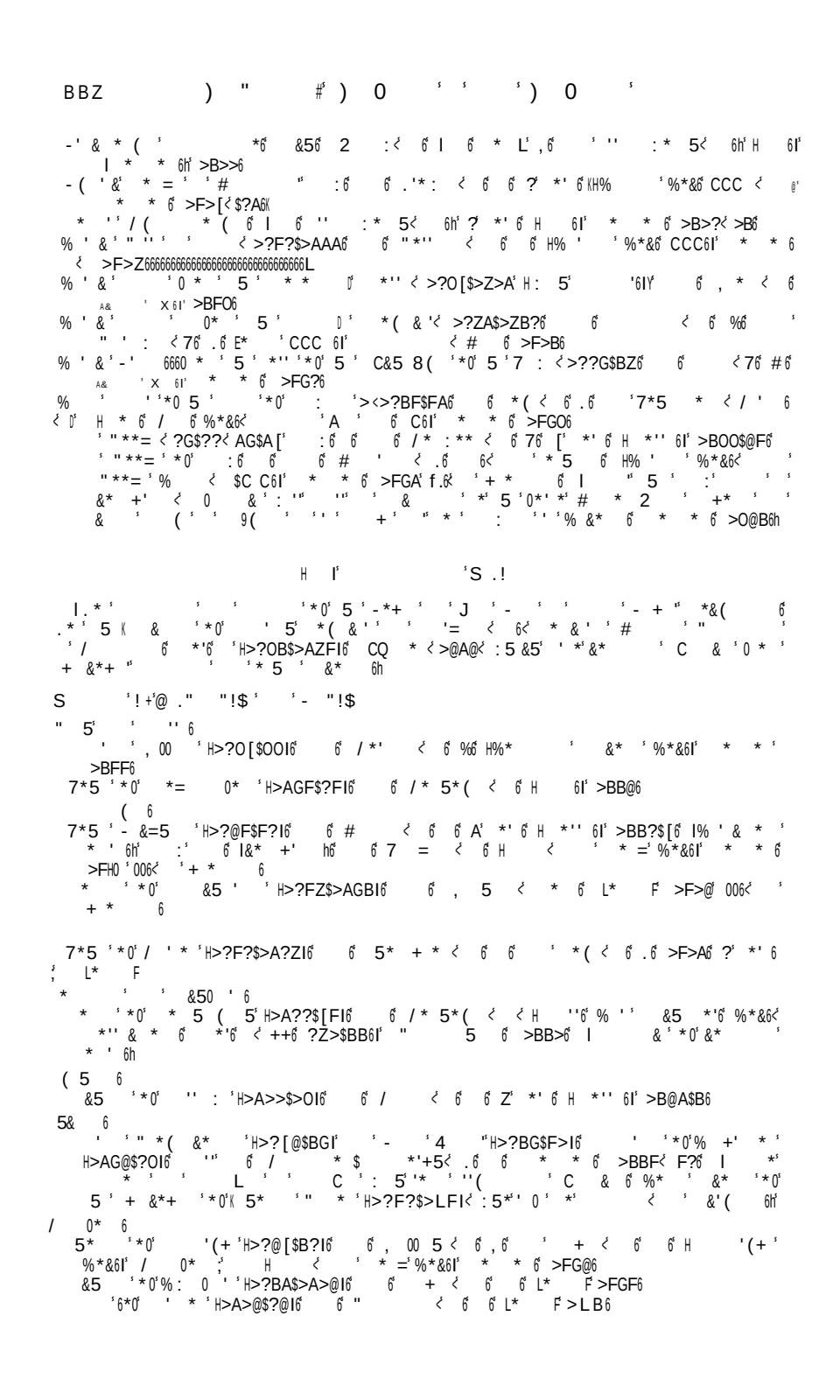

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'+5' " ' *&='H>AGZ$>AI;' , ' '% 'H>A>A$>OI;' &5 ' : +* 'H>A>@$>BI'
% +5 ' , 'H>A>B$ABI6 J #6 . * : ' < ' 6 E* F >F>>6
*&5 6
/ *'0 ' / 5 'H>A>F$[?I6 6 7*5 * < 6 L* F PF>Z'0 <' '+ * '
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/ ' ** '*&='H>AG[$>A>OI6 6 , ** < 6 6 E* F '+ + * '
7*5 '*0'% ' 'H>A>O$>FI' ' (' ' *'H>A?G$?AI6 6 <.6 7 6
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C0* 6 H>BFB$I>FG?6
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H0 6I' >FG@<?F6
' ' *' 'H>AGB$>6AI6 6 ' * < 6 6 E* F * * 6 >G?@6
' * ' ' * 5 'H>A>@$?@I6 6 - & < 6 /6 E* F >FAG6
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6 / (< 6' '-**' < 6 6 *'6 6I' * * 6 >F?G6
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C H>F>GI6 ZZ[$OZ6
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H *'' 6I' >BOO6
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6" (< 5 < * ' 5 ' 5 * &' ' *0' ' 6' 6' " < .6' 6' 6' ?' + 6' H 0%6' 6' <
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+ < 7 6' 5 * &' ' *0' ' ' H *' >Z>@I6' 6' / * < .6' 6' H *'' 6I' >BOB6
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5 * &* ' ' ' 5 ' ' (' >Z>B6' 6' # & < 6' 6' H *'' 6I' >BGA6
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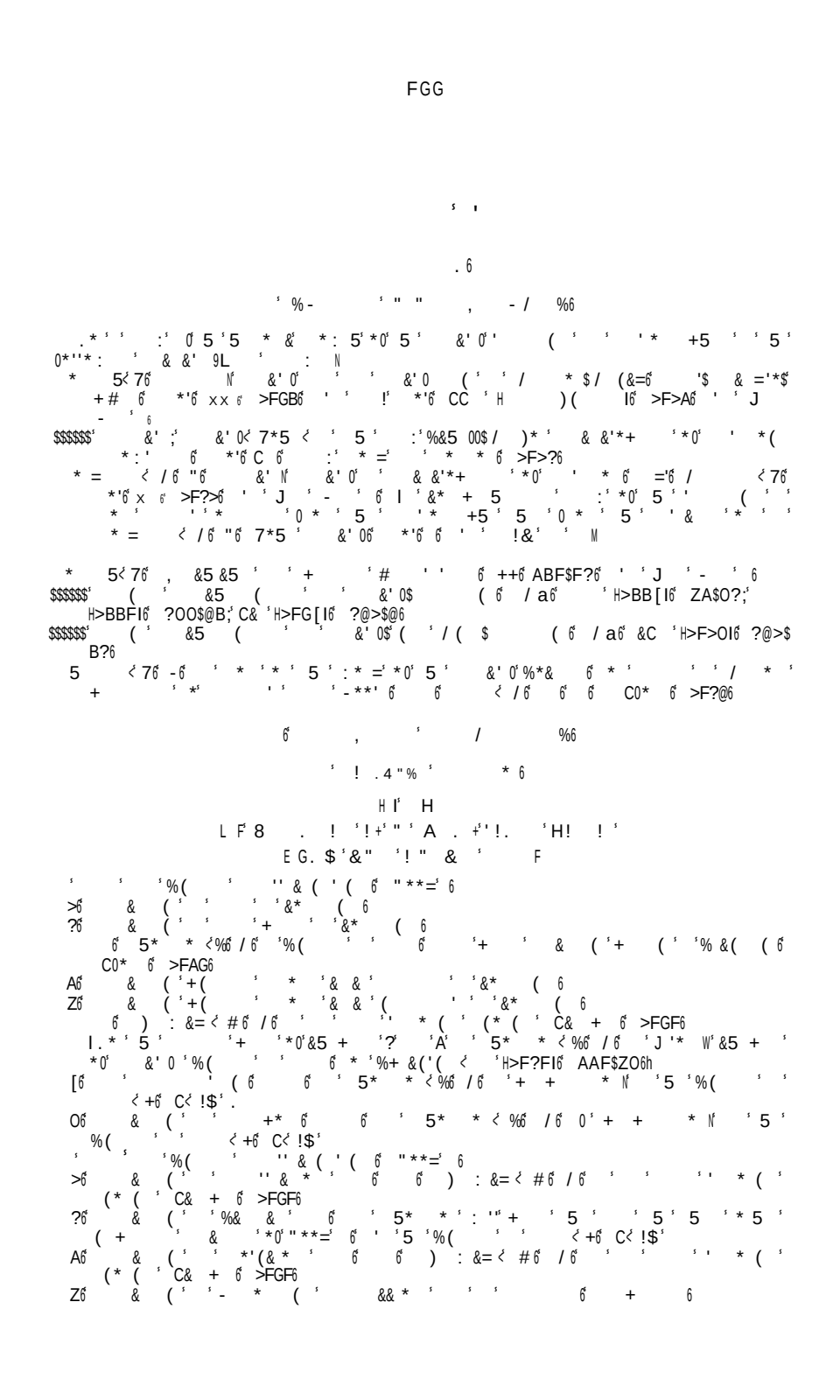
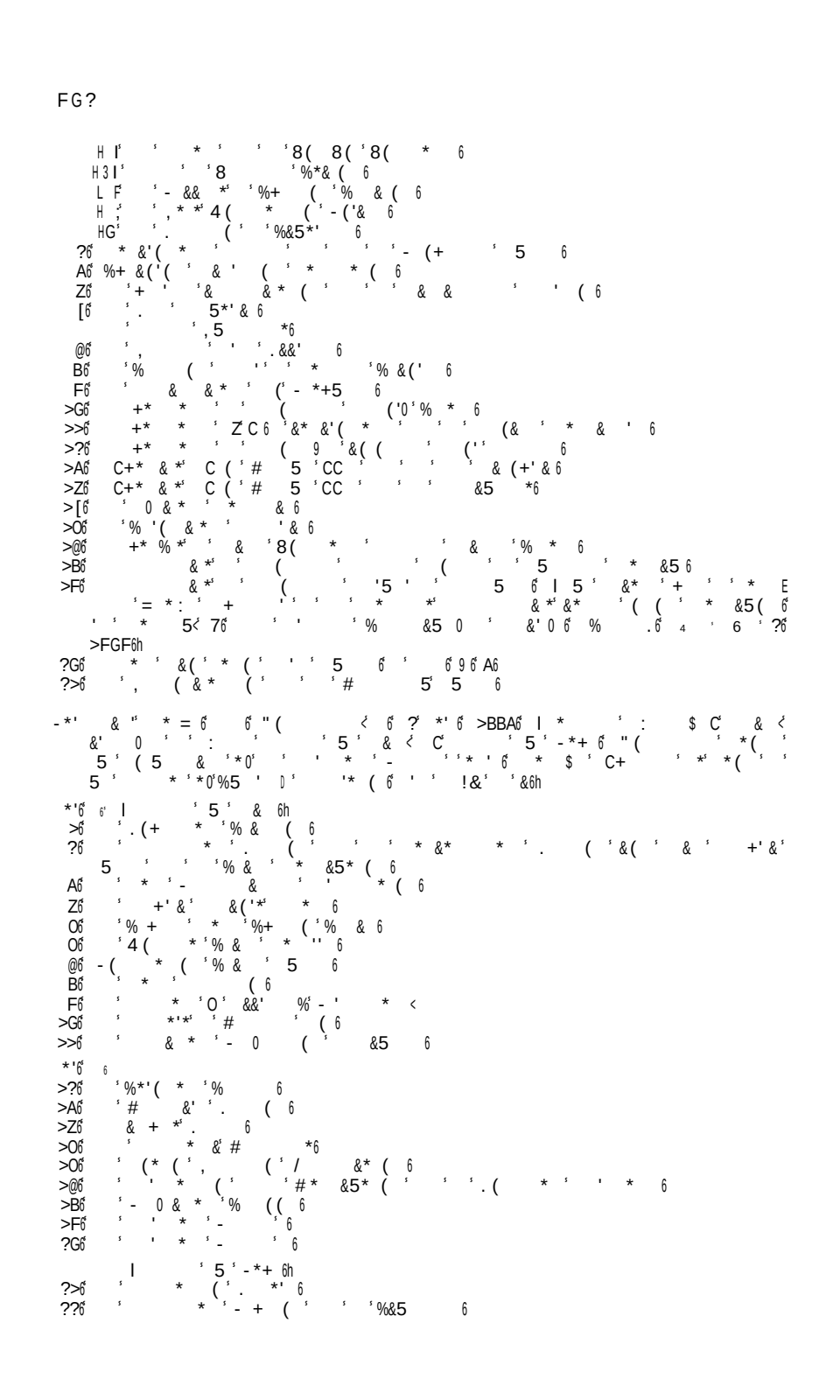
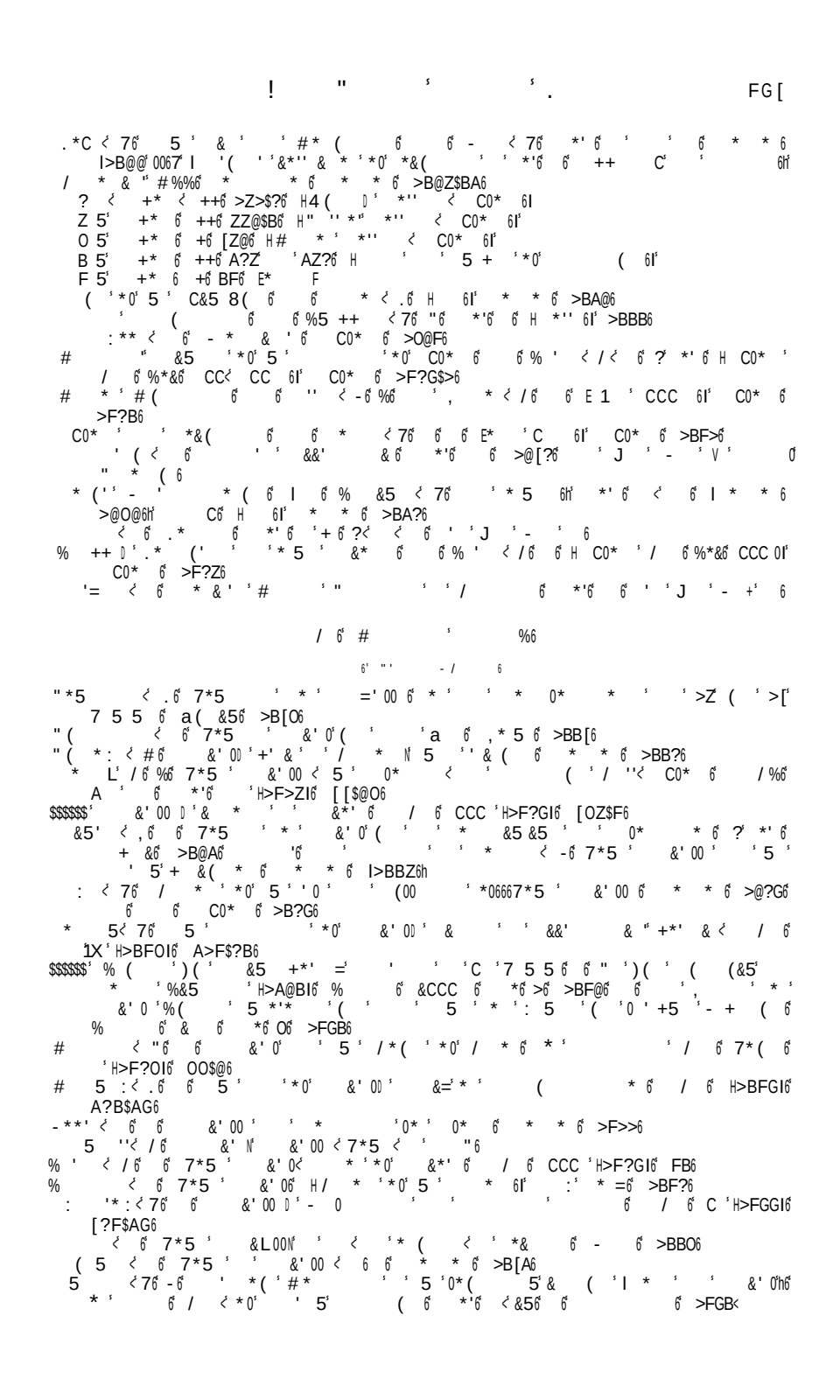


FG?



FGL



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& ' : ' ' (* ' * 0' 5 ' " (5 ' * 0' %&* ' 6 *'6 D' H>>?Z$>Z?ZI6 <
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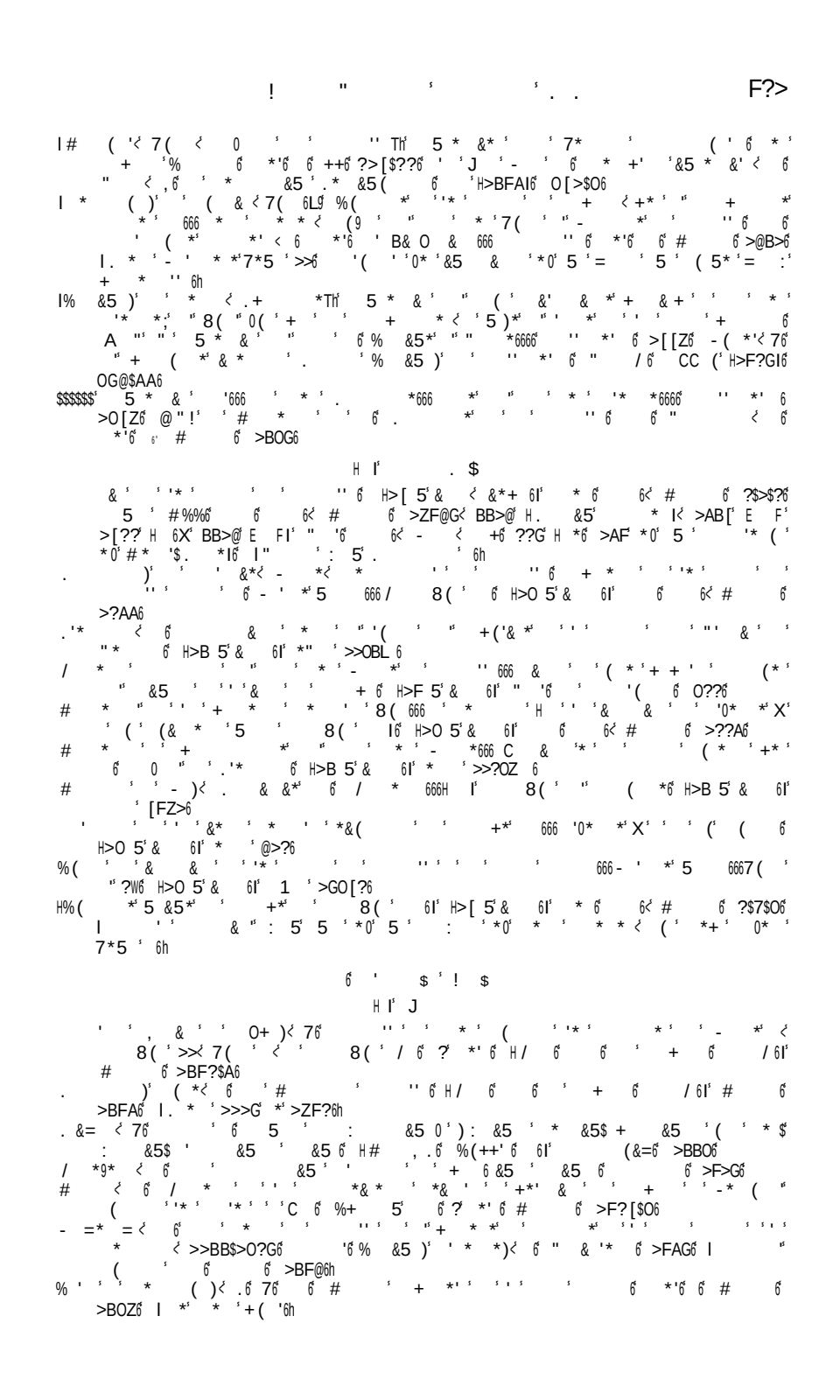

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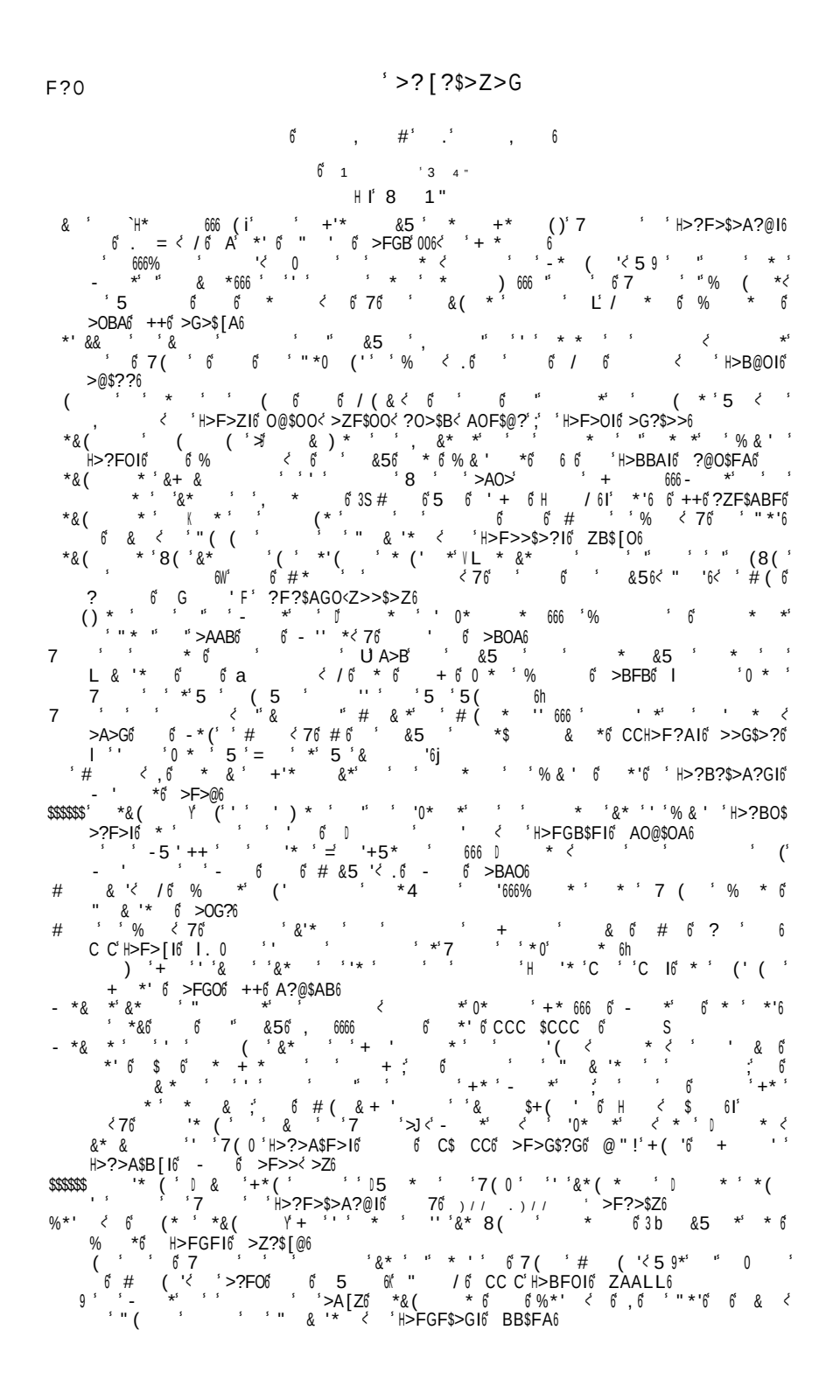

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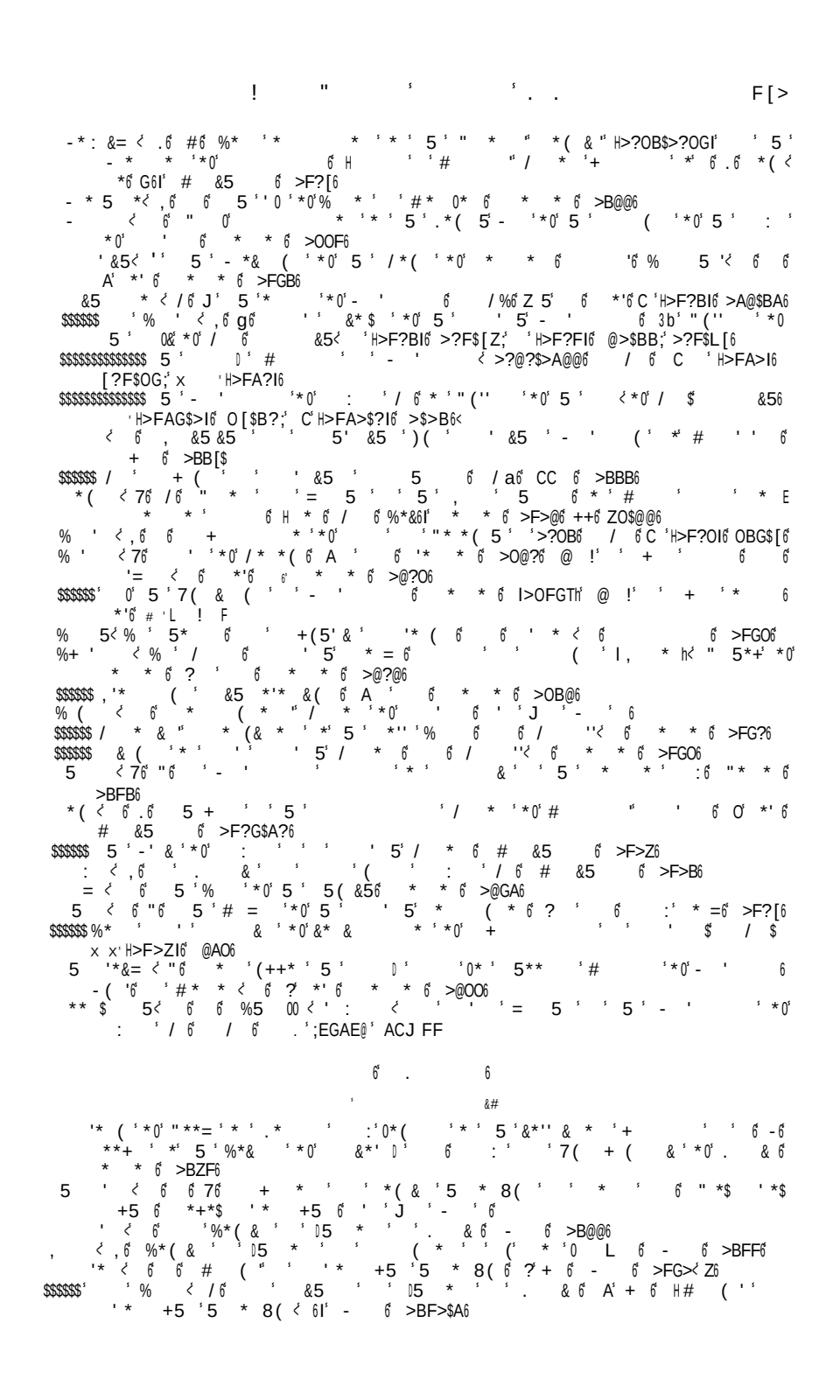

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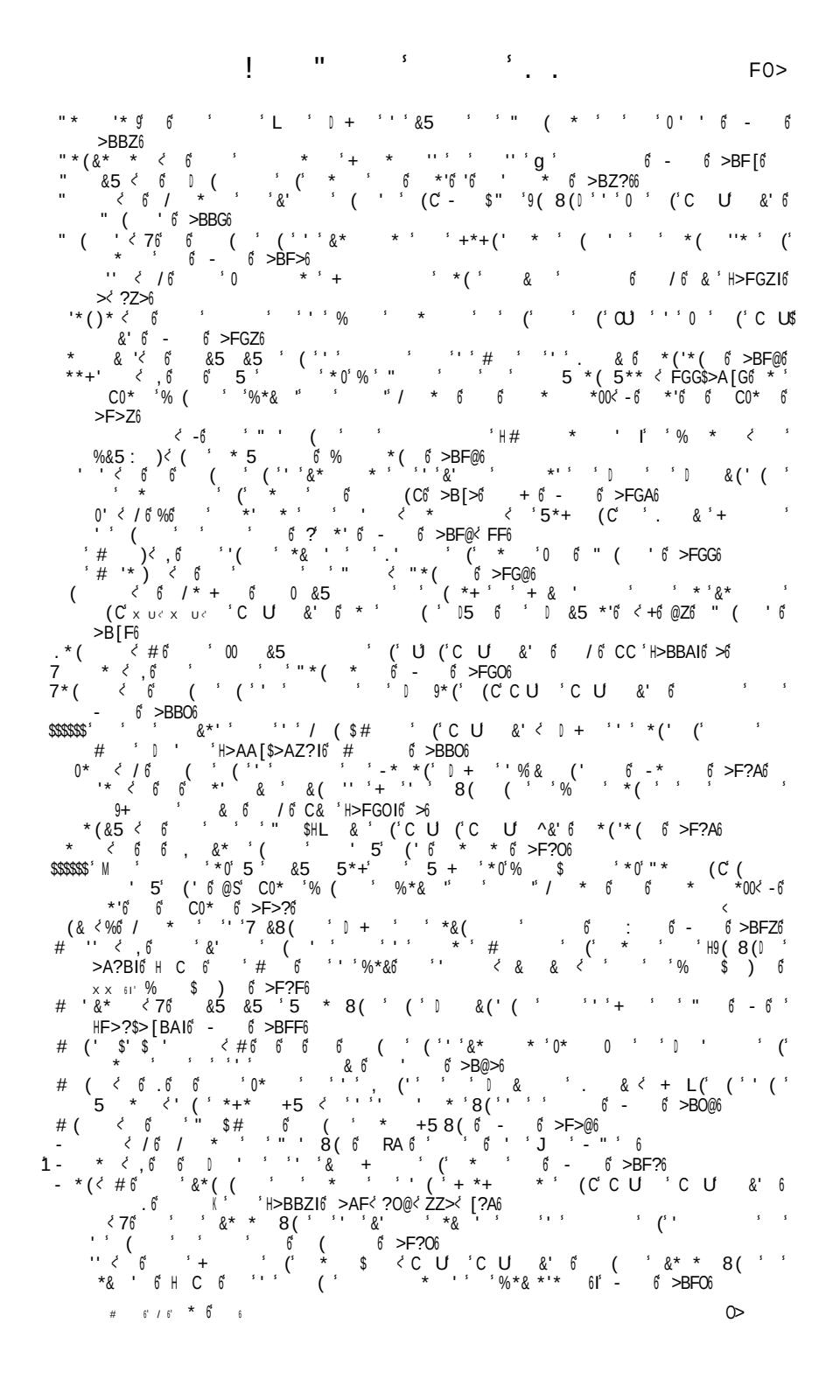

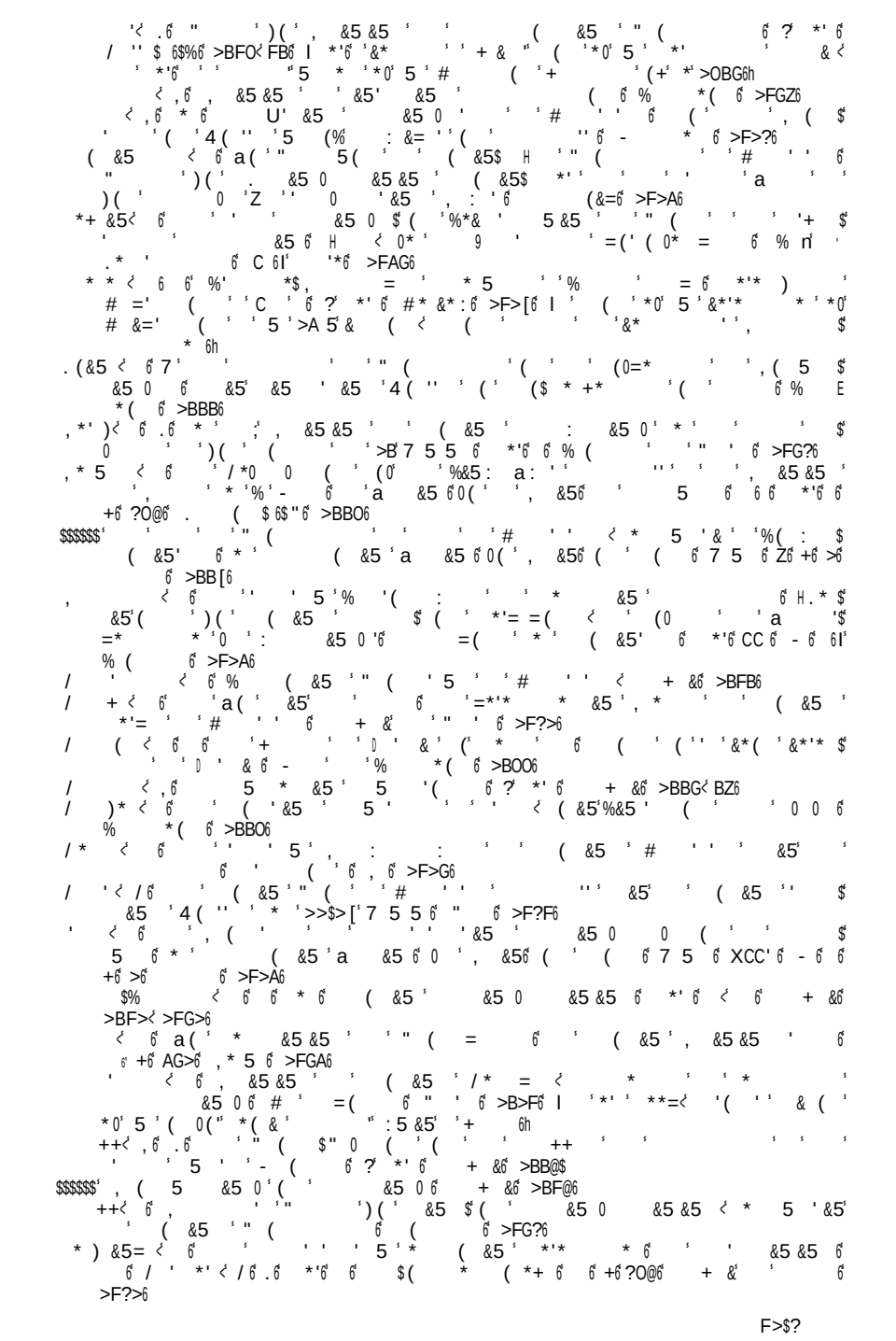

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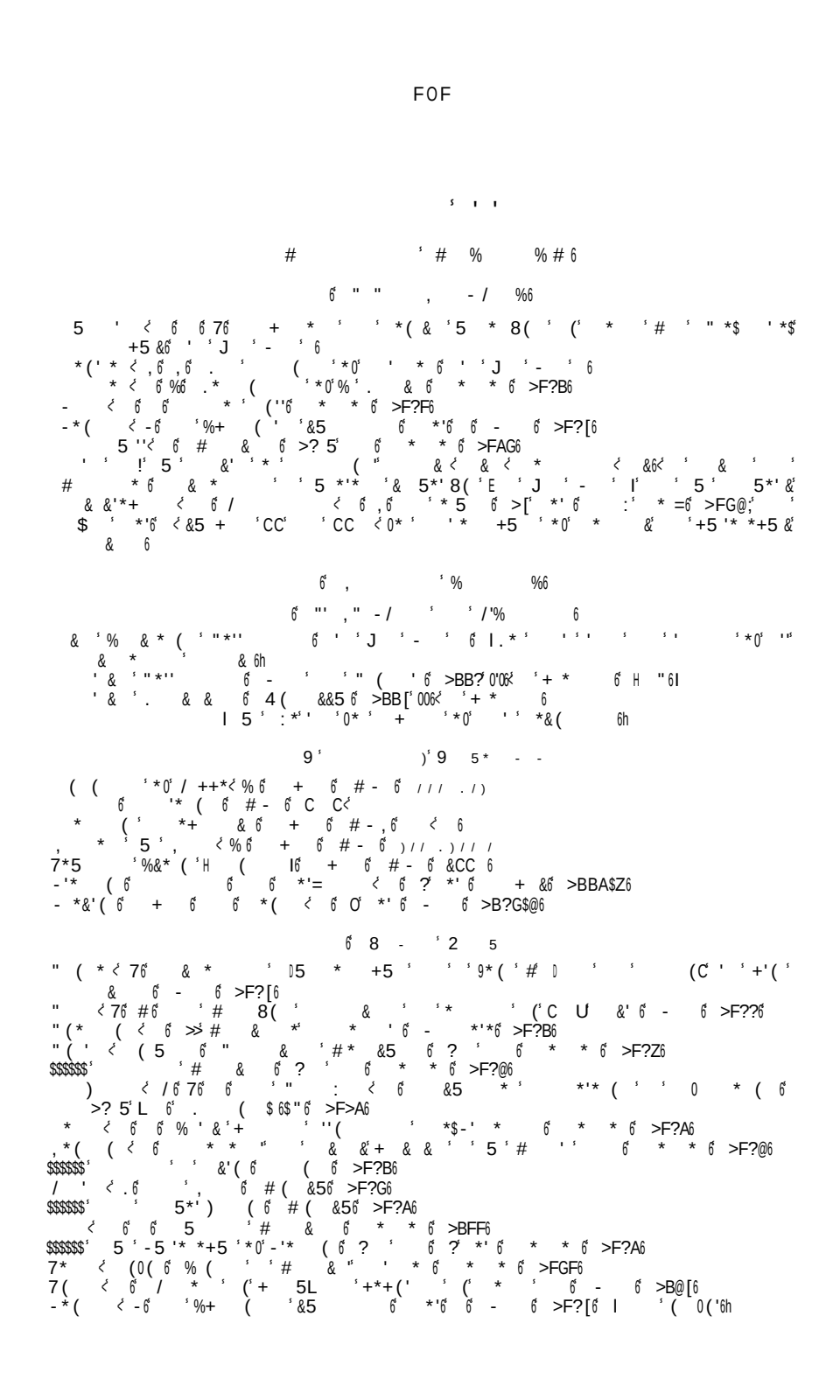

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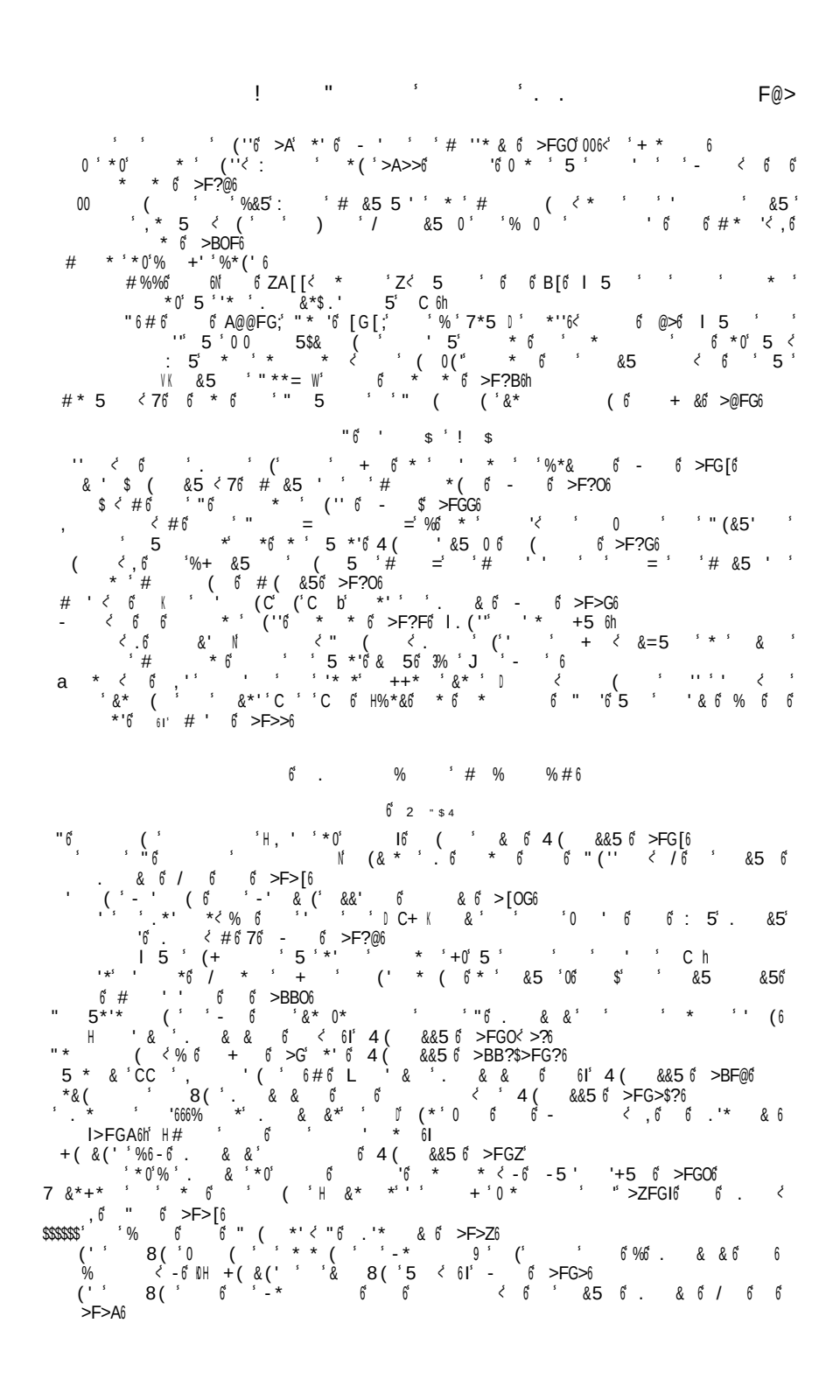

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>?@G$ B[-5 ' + 5 "*' *0 - * *(* ('*(6
>?@> 5 *0 '+5* *0 - * *(* ('* 6
>?@>$ @O , * X - *+ 6
>?@?$ >AG@ : *0 6
>?@A$ F> (*'0 *0 / *0 5 * 6 '* *0 (6
>?@Z (*'0 (* &* *0%+*' *' 5 - + & 6
>?@[% &* , * (& *0 * 6 * *0 , =5(&5 6
>?@O$ B[- 5 , *0 * 6
>?@@$ BG &5*' - *+ 6
>?@B 0 5 *0 *= *0 "*5 * 5 # &50 ' 6
5 % (*0 , '*(& HL : *' A !F
>?@F (*'0 *(& '" + "&' * 5 - + "% %& ' 6
% (*0 # * 6

F@B

```
>AAG      :      *      5 * : 5 +* :      'nP*      ''  6
>AAZL?    "      & X   - *+  6<
>AA@      (      =  *0  5  / (      D      6      :      &'      5  .    &5
          * :  6
>AA@$Z[  7      '  (  , 5    6
>AAB      '  & *  D     &'      * *0      6     5  ,      D *       & H
          .    =0*   I H .      &'      5  +      '  & *  +* :  * *
               +      *0  5  - *+  6
>AAF      *' (  *  0   * (  *0  5  $!$T !  ,   * 6
>AZG      :  '  '  =  ' *0  .    & 6
          :      0    5  .    &5      5      '  *0%' (  6
          :      *  %   (  0*      C  *      &*      *0
          -  '      6
>AZG$Z>   :  ''D 8 (      : 5 %    0*    &5    5*+ *0      (  6
>AZ?      -    &5 & * :      *    6
>AZ?$[?   '      - *+  6
>AZ?$     ZA          *0      '  *0  "      .'*    & 6
>AZA$     BA          (    HKV  5  ,      *(   WI  *(   *0%   * 6
>AZA$B>   7*      4 (    *0      +'  6
>AZA  -   & *0      )      :      5  ,      *0  - *'      5      ( *  &
          6
>AZZ  -    (      &5    5*+  &6
>AZO      :  + +      +      *  D      :      6
       5  '      H*0 "*5      I  ' &      *0  5  *      6
>AZO$@B   5  '  H  I      *0 "*5      6
>AZO      :  / 0    - 5 ' +      &  6
          0    *0  5 %&*      ''  D  *  6
>AZ@      *'      )*      (      *  6
          :      & + (      '  6
            5 *0      :  6
>AZB  -      5      *  *( *0      *      *'  5  5  8      !
          1  !
       5  '      0*(      5      *0  -    ( 6
>AZB$[G   5  " '  &=      56
>AZB$     ZF  #    &  *0  5  7 :  5 *( 5*( ,      '      *  5      *
               *  - *'      : 5 &5      &*      0      5      8(      6
>AZF$     OF  -      5      ( '      *0      ' 6
>AZF      5  '      '      *  *0  5      *0  .    &      &*      (+5  6
            5 *0      &5      *'' 6
>A[G$     OZ  7*5      5      , **      *0  .    & 6
>A[>      a (  &5 9*      5 % :      *  0      * 6
          5  0    %    (  *0  - *      *      '      6
>A[?$     O?          *&      - *+  6
>A[A$     OA          *  *)      *      5  - +  *%    6
>A[A      "      9*      5 % :      *  0      * 6
          "*&&  && *  0      5      5  3 .
>A[Z  #  9* &  0      ''      &*      +      *0  5      *      =      *  6
>A[Z$     @B  % '  C      #      *+*'      D      (    6
>A[[  .      #    &  =  5  '      5      '  %      ,      '6
       5  '      & * :      +      *      *      6
>A[[$     [O      5  '      + *    (      5  , *'      " ('  60 C      5      (
            +* :      *0  5  '  & *  6
>A[O      5  " '  &=  -      &      0      & + (      7*5      -*      H#  (+      (  I6
>A[O$     [B      5  %      ,      K  (      .      #    &  *      +      0*      6
>A[@      *  '  *    *)'+  *    (      5      *      (  *  0*      5  - + '
          %    <
>A[B      5  7 &8(  K      .      & 6      5 *0  #    & '6
>AOG      '      *0  "      =      &=      6
               *0  "      '      6
>AO>      5 *0      (  6
```

```
D AO?  .     *  *0  5   )   !  ! +8     "  8 !&      :      L
       5     '  5  -   '     *+     +   &5      '   56
  AO?$@G          < -*+ 6
 \AOA  -5 ' +  5  " *'                (= *0 " (   (     6
    >AOZ 7*5  # ' K&*0     *    0 )      *+ + K  &5     -     ( 6
>AOZ$BG   5  '     5          L      *0 .     & 6
>AO[  %   (   *0 -        (          '     6
>AO@     & *   *0  5  " '  &=  -     &          9    6
>AOB$OF   5  '     D   &*     '     C+       * 6
>AOF      :  " *0  5   / (          D     6
      /       *0                &*     0    ''      *0       ' 6
              *0 %     ' (     :     5  /       '          6
>A@G   5  8+ ++        +          5  % :     * 0        * 6
b6 >A@G      &' 0 + (  '  5   3  -     .  *  .       !
>A@G$@B   ,     *  X  < -*+ 6
>A@>      :     >>>          *  -     '       D  +     *  0* '  '          *0  5
          * :  6
>A@?      '     '   0'     0     5       '  5 *0.      *&5  '' 6
>A@?$@A   5  (&   D  0    9*(      *       ' 6
>A@A   5   '     &8 (      "          (  6
>A@Z       5 *0 -       &56
>A@[       5 *0 " *&&  && *6
>A@O   5  , **  -     '          '     6
           5 *0  5  " '  &=  -     & 6
>A@O$@B   K  *0  5  L K     5  %      W      :     . '*     &     5  -  + & 6
>A@O$   BG       &   '  <      *0  5  *      6
>A@@   ,     *  X      (     *      *    6
       ,     *  X  &*          &' 0D      &5     5  3       3 !      !
           5 *0  [  :     6
>A@@$    FF     &5      <      *0       '    6
>A@B       *' *0  5       *   +      . '*     & 6
              *    =*  *0 # *  &* :     0     5                 (' =*  **  5      *  6
>A@B$    BF          '< -*+          *    6
>A@B    5  ,     %&5      =  *( 6
>A@B$FZ   '          ' '< -*+          *          * 6
>A@B        5 *0  5   '     6
>A@B$>Z>F       &   '  H    I<       *0 " *5       6
  >A@F       &' 0     &5   5   *&       *0  5K   (&5      6
>B@F        5 *0 "          (' , (   &'  6
>ABG        5 *0 %      5        *0 %     6
       ,     *  0* &   (          *     5 *     6
&6 >ABG    5   *''      *      '    * *0  5  "    '      *      '  5      + *       6
>ABG$B?    -5 ' +      *          '    (' ,5    6
>ABG$    >Z??    5   '     <        *0 .     & 6
>AB>      5  -      D       *'          '     6
>AB>$    BO      5    '   /  *0     (    ))*<       *0      +'   6
>AB>      -    & *0     (     *      :     *      & *     ,     * 6
>AB?      &5     5*+      *(          (++        5      *''      +       *     C0*   6
          5   '     *     0     5  .'          *     **       = 6
>ABZ   -5 ' +  5  " *'  *0  " (    (      *     &*      *     *(    *0 .'          *     *.      &5
           *     6
              5 *0      &' 06
              5 *0  ,          ,  **  6
>AB[      5  - *    (    (      *     0     5  *          '      *     *     '9(       *   6
       -    & *0     *(          *      :      *  -5 ' +  5  " *'  *      *     5  .'          6
>AB[$    >ZG?    ,      ,   '  ))*       &*     <      +* *0 # '    6
>ABO      5  % :     *     0     *     (    *'0      *0      (       *     %     + &56
>ABO$    >Z>Z          '     <        *0      +'   6
>ABB      5  #    & '     *     -     '          *     *          '      6
          5  % :     *     0     *     '      *     *0      (       *     *     0 ' 6
```

>ABF &5 (0(7 * "+* : 6
>ABF$>ZGZ "* 0 & X -*+ * 6
>AF> # & 0 5 7 : & (5 C & *0& + *$7(%+ 6
>AF? 5 ' *0 5 / %6 : 5 * * * H 5 && * $= *0 7*5 (WI6
>AFA # (*0 7*5 *0 +* (=6
5 ' $." " +* * (' 5 % : * 0 * 6
5 M W % (*0 - (' 6
>AFZ 5 *0# *0 7 * 6
- & : (% :) 6
>AFZ " & X ' & -*+ * 6
>AF[, , ')* * & (= *0 # ' 6
>AFO (& ' 5 / ('D 6
>AFO$>ZGA 5 *'* &5 , = .'* & # ' - 6
>AF@ 5 * *0 ' 6
>AFB 5 - ' *0 %5 : (6 &5 5 * 0*'= / 0* 6
. & : 5 : * & 0 * " & X 6
>AFF +* * *0 &5 6
>AFF$ >Z>A / *0 ' 6
>ZGG$ B *' *0 : , ' + $ ' 6
>ZGG +* * *0 & ' 6
>ZGG$>G (+ *0 5 5 *0 5 * 6
>ZGG 5 *0 5 (& 6
>ZG> (+ *0 5 * 0 5 &* 6
>ZG? 7*5 / (&5 *0 5 " 5' 5 5 + * - (6
>ZGA . & (* * & *' " & X' 6
>ZGZ$O *& -*+ * 6
>ZGZ$>F 7*5 5 . ' (= *0 " ((6
>ZGO - & &* (9 & * .'* & 6
, * X ' & -*+ * 6
>ZG@ # (*0 *((= *0 6 5 " ((& 0 & * = 5 + . & 6
>ZGB . & &' (' : 5 -*+ 6 *0 * "&5(&5 6 *' (* *0 5 ' *0 * 5 -*+ 6
>ZGF , * (& *0 - 6 +* * 5 -*+ ' & ' C 6 # *0 * & # ' *0 % & ' 6
>Z>G 5 *0 ' C 6 ' & * *0 7*5 XX - *+ 6
0 *0 5 (* & 5 -*' ' H , (: ' I6 % (*0 (C (*0 / (' & *0 5 * 6
>Z>? . ' ++* # & * & (= *0 # ' 6
>Z>A 5 *&5 * - 6 5 = ! . = !."
>Z>A$?? / *0 ' 6
>Z>Z$ B , * (& "*0 * & 6
>Z>Z$ OG , (* *0 * &5 5 &' & & * . 6 6
>Z>[5 *(& "*0 * & +* 7*5 XX 6 , * X & 6 / 0 5 . &5 &* (6
>Z>[$?F . 8(&* *0 # %%* *0 '* **= 6
>Z>@ 5 *(& '*0 * & +* " & X ' & # $ -*+ 6
>Z>F / & + (*(6
(*0 7*5 5 . ' *0 " ((# * (6
>Z>F$ O@ -5 ' + 5 , ** 9 = *0 " ((6
>Z?G *0 * : 5 &5 / &* *0 . & 5 * 5 5 * 6
>Z?G$ ZO * * . ' &* (& 5 &5** *0 , *&* # (6
>Z?? 5 *0 / 6
>Z??$O> 5 ' *0 . & 6

8 / ,

''* *' ‹' = '*0' ' ‹ [OF‹ [@A‹[B>;'
5 ' : 0 ‹' [OF
'0* *' X‹' 5 ' ‹' = '*0' ' ' '
* ‹' ?A‹' [O@‹' [F?;' 5 ' ‹' [BB' 88<;'
' 5 ' + '' & * : ‹' >G?‹' [OB' %88%j'
: 5 : ' 5 ' &' ‹' @F‹' >GB‹' [@G;' K'
5 '# ** ‹' [@G' 88%;' 5 ' &* 8('0 * ‹'
[@>' 8%‹' [FA;' * &'+*' & ‹' [OF‹' [@?;'
' 5 ' 7 : ‹' [FZ‹' O[?<OOG' 8%;' ' : ' '
* ' (‹' [OF‹' [FA‹' [F[' 3 =
H! '8 '*0‹' [OF‹' [@>‹' [FB‹' [F[‹' OO>;'
* ' 5 ' '@ZF;' ' . & ‹' BGB‹'
ZG>;' ' 5 ' ' *0' 9*(‹' [BA;' ' 5 '
(&& * ‹' AGB‹' [@>' 8%;' 5 ' 5‹' O@>;'
5 ' : ''‹' [@>' 8%
'0* *'X ‹' = '*0' ' ‹' * '*0‹' O@Z‹'
[BG;'+*' & ' '&* 8('*0‹' OO@<[@Z<OBF;'
5' *0‹' [@Z;' 5 ' * ‹' SO%;' [@[‹' [B>‹'
[BF
'0* *‹' * ‹' 0 ' ' ' ‹' C ' '
0 * ' ' ‹' AGB‹' A?G' 8%‹' [@>;' + '
*' &(' 5 ' 5 * ‹' [@?' 8%‹' [B@'
'0* *‹' * ‹' * ' *0' - ' ' *0' ' ‹'
[@F
'0 ‹' 5 ' , ‹' = '*0' C‹' [[?'
' ‹' & ' *' - * ('‹' [OF';' [@>'
' * ‹' '*0‹' O@A;' ' '*0'H>AZGI‹' [@Z;
& + (' ' '0* *' X ‹' SO%
' 5 *‹' O>
' 5 ‹' 0 ' '*0‹' >G;'bb ' '
@ V ' 7 : 5' 8('*0' * : ‹' ' %+ ‹'
O[G' ! '>‹' OO>
'9(* ‹' ' '*0‹' ZO@‹' OBG'
'' ‹' ?[B
@ '&* * ' + (‹' '% :) ' ‹'
>BO' 8%
''* * ‹' 5 ‹' >BA'
' ‹' '*0‹' [@A'
' *5 ‹' [O@;' + &(' 5 ' 7 : ‹' OAB‹'
OOG
' * ^ ‹' OO@‹' OAB
' : &=‹' # '&*' ' * ' ' ' ‹' [[Z;
'' ' 5 ' * ' & + (' ‹' [[F'
'+5* ‹' &*(' *0' -* *(' ' *('*(‹'
5' *0‹' AGO‹' ZG>
'+ ‹' '*0‹' '%&* ' ‹' [[?' 88%
'+ ‹' ‹'" * ' ' ' ' '
‹' >B%A' 8%;' / ' / '& * ‹' FB;' + '
*0‹' >B@;' '" ‹'" (' ‹' - (= ‹' (=$'
‹'# * $ ‹'% , * 5 ‹'% +'* ;'
+ ('*0‹' >FG‹' >FF‹' @Z@' 8%;' '+ ‹' E
(‹' ZZ;'" ‹' >F@;?‹[>‹[Z' 8%‹[@‹'
OF' 8%‹' B>' 8%‹' >?A‹' >BA' 88%‹' >BF<>F?' 8%‹'
>FF‹' ?@>‹' ?BZ%' O[F‹' @>O'
' & ‹' B[‹' F@<>FF<?GB<A@@‹' @??;' & '
*0'7 : ' ‹' O[@;'+ '' ' '. ' * + E
‹' >ZF<AO>;' ++ ‹'%*(5 'H% (I‹'
@B‹' ?G?;'+' *'" ((‹' ?G[;' K*' '
' : ' ‹' ?GO'
' 5 *‹'+ ‹' @@Z'
' *+ & *‹' , ('0' 0 ' ‹' [Z'
@ ' = ' , *' ' / * '
(' ‹' &*('*0'% * ‹' (++* ' / '
‹' B?‹' FB;' '' '*0'" * '*0' +' ‹' ZA;'
+*' & ' '% * ‹' [F;' BF‹' @F

(' ‹' 5 ' J , ' *(‹W' &*('*0'
% * ‹' '*0'% * '(‹' [F' 8%;' + ''
1 & ' * ' 5 ' ' ‹' OG;' ' : '
& ' ' , * ‹' OG' 8%;' ' '' 'K: 5'
5 ‹' O?;' (++* ' *('*0' 9*(I '&' '
*' +' ‹' O?' 8%;' 5'*0‹' OA'
(' ‹' &*('*0'% * ‹' @?‹' @Z‹' >FF'
‹' 0 & * '' ' ' * ‹' AA'
('*0' 5 'H*0'" '% *& '*0‹'
@BF;' (‹'
* ‹' A[>'
* ‹' ?[O‹' ?OZ'
‹' ?G>
& ‹' C+ * ' : : ‹' @?[;' 7 : ' ‹'
OOA
‹' BZ>‹' A[A‹' AOF<A@Z‹' AB?<Z?G‹' Z?B;'
'*0'H>?@FI‹' AGO‹' ZG>‹' Z?F;'& 5 '‹'
AA@
('# & '' (‹' &* '*0' (E
& +'*0‹' @O?'
* ‹'"* '*0‹' Z?Z'
+('H +(I‹' . &5' (&& ' ‹'
[B[;'[B@;'&*('*0‹' '- '*0' * '
('*‹' &5 5*+'*0' * ‹' OAF'
‹' Z‹' >?;' + & '*0'H>#[I‹' A?G‹' [BO;'
& + ('*0'"* 0 & ' ' ‹' >[' 88%‹' F>‹'
A>[' 8%‹' @[?;' & * '*0' 5 ' '*0' ( ))*'
‹' OA
*' ‹' ' *' 5 ' ' ' * + ‹'
[BB
&* ‹' (' *'& '' ' * *)‹' [B'
&* ‹' # &5'*0‹' A;'0 & * ' ‹' ZA;' &8(E
* '*0' 5 '# ' ' ‹' [O' 8%;' ('
*'- +L ‹' [B;' 5 ', '%&5 ‹'?FF;'
0 ' ‹' @FZ;' & * '*0‹' ' ' *'
@ . 'S & '@BZ' 88%
'(‹' [@<OZZ;' (' ': 5' 5 '# ** ‹'
[O@‹' [B>;'& + ' 'H>AGFI‹' [@A;' E
& '*0'7 : ' ‹' [B>;' ' ‹' [FA'
‹' ‹'*0'# (‹' B>?'
: ' ‹' = '*0' / (‹' BZ;' 5'*0‹'
F>
: '*0' / (‹' 7* ' ' *0'
+' ‹' O?;' (‹' O>‹' O?'
: ‹' 5*+'*0' - (‹' >@G'
: ‹'*0'# * ‹'%&* 5' + * ‹' [O['
(' "* *' (= ‹' + & ' *0' %() 'I‹'
, ' - & '*0' ' ‹' &* 8(' ‹'
OGB' 8%;' +*' & ' '%() 'I‹' O>?;' O '
' * * ‹' O>B;' 5 ' * ‹' OGB' 8%‹' O>?;'
5 ' * 5 ' ' +5 : ‹' O>?'
* ' ' ' '" *&5 ‹' *' *0' '(‹' & E
'‹' ' ' 5 ' - +" % ‹' [B' 8%;'
>ZO‹' ZB@
* &(' / ‹' - ' *'* (‹' ' E
+ * ‹' ' * ' : 5' & ' ', * ‹'
?@' 8%‹' ZZ‹' ZB;' ' 5 ' ' ' * + ‹'
[BB
* &(' / ‹' - ' *'* (‹' ' E
+ * ‹' 5'*0‹' ?B@
* &(' ‹' - ' *'* (‹' ' E
+ * ‹' O>
‹' * 5 '*0', ' ' '" ‹'[>A<OA['
' '*0'. *' *‹' &‹' @F[' 8%
' &*‹' . ‹' + ‹' : * =' *0‹' @@A' 8%‹' B>G

FB0

*

*‹ ' '*0‹ ?GG'
&5 *'* ‹ ('*0‹ @O>‹ @OB'
&5 & (‹ (' ‹C ‹OZ[;' '"*5 ‹
>[B<>OB;' '5'" ' &'' ‹? # ;' ' (‹
OGG‹ O>?‹ O>B‹ O?F;' ' * ‹ ?B?;'
7 : 5‹O[G' 8ß;' * &‹@?O;' ") ‹
OGG‹O>B;' * 8(‹@@?;' (' '
* ' (&5*' ' ‹@O@;' &'
&5 & (‹@@?‹@@[' 8ß;' *'0* '
* 8(' *' , * 5 &‹ C‹ @BA;' 0 * '
, * 5 &' *' ' & '‹!@@[' 8ß
& &' & ‹O>@'
‹ 5 ‹FA'
‹A@Z
@ 0 'H5 5$= '*0' ' I‹ ' ' '
' ‹ ' ' ‹ = * '*0'
*‹ * *‹ '" ('
'*‹ & ' '*0‹ [@O'
))*‹ ?‹ ?G' 8ß‹AF‹@[?‹@OG;' ' , 5 '
& ‹B;' : ' : 5'.'* & ‹B' 8ß‹>B' 8ß;'
0 ' ' + ' *‹ F;' + & ' : 5'
.'* & ‹AF' 8ß;' *&&(+ ' ‹@>;' (+E
+* ' / ' ‹A?‹A@' 8ß;' 0 &* ' ‹
@@?;' 5*+'*0‹B' 8ß;' ' ' '
0* ‹ [>G'
‹ABB‹ [A@
''‹ '' 5 ‹ [ZF‹ [[F;' &* 8(' '
' C ' ‹ [OG' 8ß;' *& '*0‹ [[@'
+('* ‹ 7* ‹ , ='' & (' '
' ‹@OG
‹ ' 5 '7 : ‹OA['
* ' ‹C ‹CC‹>Z>;' ' * '*0‹A[F‹
@[@‹ @[F' 8ß‹@OB;' & & ‹@OF;' $'
* ' '+5 '*0' 5 ' & ‹O[?'
' ‹ 5 ‹>FB
' ‹& '*0‹ 5 ' ' '& * : ' ‹>ZF'
' 'H" ((I‹ ' ‹= * '*0‹ '
5 + ‹>GA<>GF<>ZF;'+ *+* '& * '
' 5('*0' 9*(‹A?‹A[‹BG;' *' 5 ' '
0' ' ‹AAB;' . &5' '* ‹B?<>GF‹
>?@;' ' 0'(& ' ‹ >ZF;' 5 ' ' '*0'
. & ' + '' & ' ‹AOO;' B>‹ >O@‹
>BF;' ' ! +5 Z‹ . &5 ' * Z‹
6- * & ‹ % * '
' 5 ‹?G?'
' (C‹& ' '*0‹A[A
5‹ [?F‹ [A>;' '*0‹ [A>‹ [AA;' "**='
0‹ [A>;' 5+' *0‹ ' # ' *5 ;' &5E
5*+'*0‹[AB;' .) '+5'
&‹ 0 ' '*0‹ AOA;' &*(' *0‹ '
" ‹ , ' ‹7*5 ' ‹ / '
* ‹+ ' '. & ‹0 (' : 5' 5 '
"((‹>>?<AB? 8ß‹AB[8ß‹ABB 88ß
@ . ' ‹ '*'. ' * + '
' . & ‹ ' .! ." '
‹ ‹?@‹?[A‹ 0>A;' &5(&5'
‹?BO' 8ß;" ' ' * = ' ‹?B@;' &5 E
& (' ‹ O>?;' 7 : ' ‹ OAO'
' ‹ * ' ‹' ' 5 ' ." '
O[@
*(‹ AB@
‹ ' . & ‹ AA[' 8ß‹ AZ?‹ AO?‹ AB@;'
' ' ‹ AZ[‹ AF[‹ ZA@‹ ZBZ;' ' 5'
&5 ‹ AZ[‹ AZB‹ A[>‹ AB@‹ ZA@;' ' 5'
&5 ‹ [A[' 8ß;' ' H ' ' Iß

[A[' 8ß;' *0' 5 ' (* &' ‹?OA‹?OB;'
%: ' 0 ‹ >FG‹ ?G@‹ ?>Z;' ' $‹'
& ‹?GA<?GO<?GF' 8ß;' '' ‹?G@' 8ß‹
?>Z‹A[Z<AO?‹ AO[‹AB@<ABG;' ' ‹
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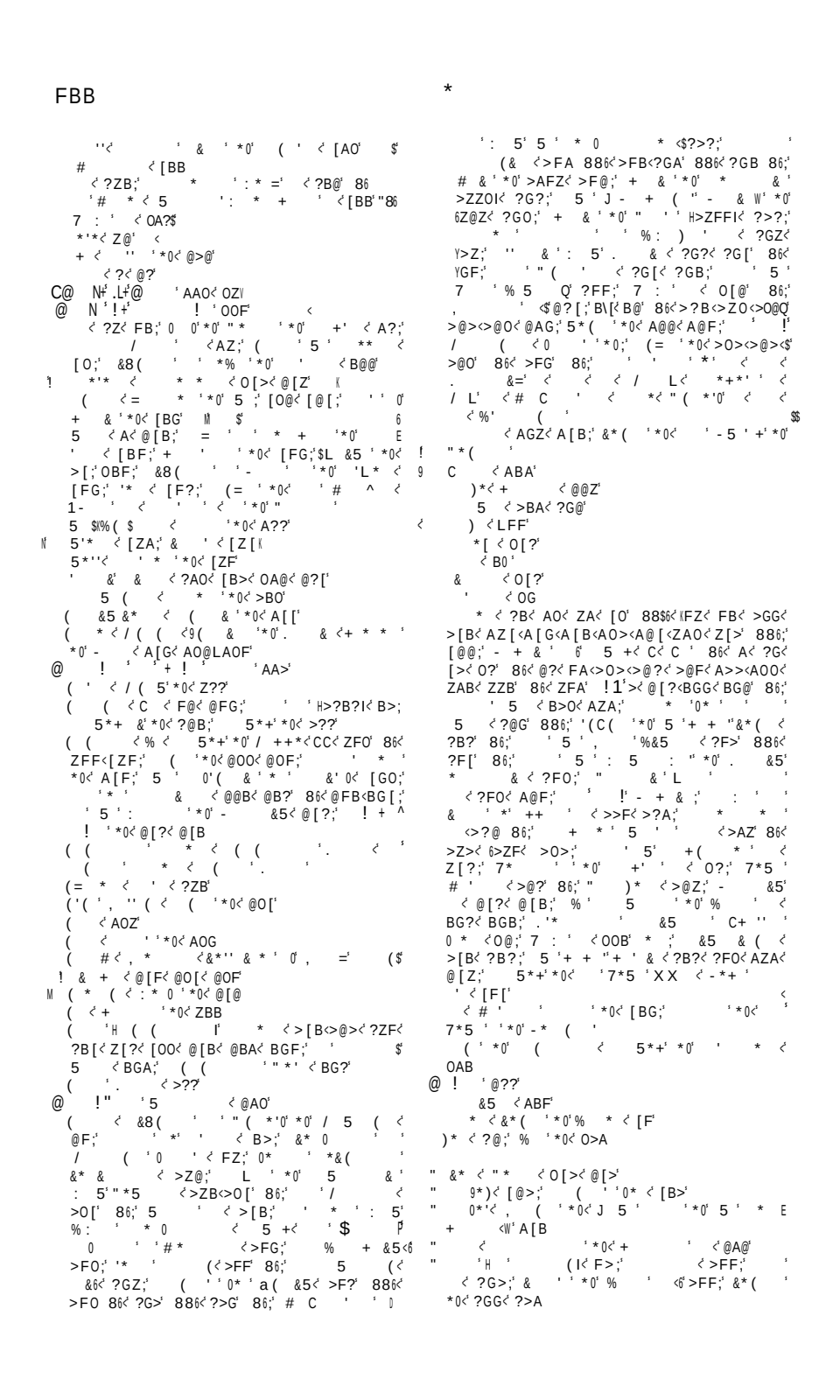

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;&B &!3:' ;&B &!B!:' @&&:' *,6" 3 L
B& # % ;&BP:' +*" B()' #))$' % 1:' *45" &#
#C #$:' 422:' 445:' *46" &#7)!B3)#B &#
B1 $):' , ,.:' *65" B()' >)0!' !' ;&B &!B!:'
*44' !KK:' *2." ;&B &!3' &#' C1& B 1)'
+,4' !KK:' +2,:' +24P +2*' !K" '
#N)1!:' ! 19'
; $&!B1& :' I 1#B:' *.'
; ;):' 3 # !B)19' %:' ./*'
1 C ;' 1 %%9$$' % M)#B C:' *6/'
1 !! &3):' /+6:' */+" N # &! # #7)#B
B:' 2.8
1$&%%' ;B 1)$' I9' B()' 3 1 ()1!:' 5,6"
B(1) B)#P I9' 9#' &(:' 5,4" !B):' '
1$&C #:' !B):' 568:' 5.:' !K")$)$' B'
90) 9#' B()' 1) B:' 5.4' !K" 525" !(&1)'
%:' 5./:' 5,2
1$ # :' $3&1 '% 1' I)1B % ;)!:' 44'
1$ # :' 7&! #B %:' */2'
1)0:' % 3& 9' %:' 525'
1)0:' $ '$):' 525'
1)0:' M& & 3' $):' *25'
1(3:' I BB)' %:' 55,'
1&#B(&:' K &1)$' I9' $ % % !!I 1C:'
+8:' ./5" I9')&#(1$' % 91 :' /." B()'
!)!!& 3' B :' .,*' !KK" C&7)# B' B()'
!!I 1C!:' ,/:.*:.*5")0&!' % 1 #L
$)#I 1C' #$:' .22:.28" .85" $ N)' %:' +8:'
/." ')#19:')0&!' :')&#(1$'
1&#C% 1$' C(:' 54*'
1&!):' 46/:' 55/" ; 1& 3)#B B' H.26+G:'
,++:' 4.," B B B)' % H 26+G:' 4,+:' 456"
!B):' 554:' 55/
1&!):' #$1)0' 1 9:')1' %:' 4,4:' 4,/'
1 0:' #B9:' 526:' *25:' 54*'
13 1B()#:' 4,," #K)1)$' I9')319' :'
*.6")$)$' B' $90)9# B()' 1) B:' 5.4"
1) ;B 1)$:' 5.5" ;B 1)$' I9' 9# P:'
5,4" !(&1)' %:' 5./' !K
13)&B)!:' .,,:' 4**'
13 # :' 5+/
1# 17 #:' $3&#&!B1 B&7)' ;&B :' 5./"
I&1B(' % $0 1$' ' B:' 5.8" !B):' 568:'
5./" !(&1)' %:' 5./:' 5,." 1 ' %:' 5,."
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3& :' +8:' /.:' ./5:.85" $ N)' %:' +8

1 I)1B' 3 ' (1)!' I)1B
1 &#C& #!' 1 B#C& #' 3 ;&1)' / .:. / 4:'
**4" #$'B()' >)0!' *2/' !C:' *44:' *4+'
1; B(& #!:' 3B!:' +.*'
1;)#B1 !:' *//:+5,' # 7)' B:'.:' 4,'
11 1 :' :'% 3&9' :'*..:'+.:'+5/:'++5'
11 1 :' 1 #)! ' '$:' 1$' % $:'*.:'
+5/
11 1 :' 1 #)! ' '$:' 1$' % $:'+5/'
11 1 :' & 3 '$:' 1$' % $:' 4+'
11&)1:'> (#:' 1$&# :' 26.'
11 'H)1I G'N&#C' % !! 19:'526'
11 0:')#)$& B&#)'(!)' %:'/6+'
1B C)# :'B N)#'I9' % #! ' ':'5+.'
1B ' 'H.262G:',,4:',2+:'4..'
1B(!& #' 1$)1:' 1B(!& #!:' % #$)$:'
+/6")(1 B)1&!B& !' #$'&#%)#)' %:'+/."
&#' #C #$:'+/5:'/65" (1B)1(!)!' %:'
2/.:+/8:/6*:/..'/62:/..' ' ' 1 #$)'
(1B1) !)
17 J)!:'% 1B1)!!' %:'5+*'
!):',4
!): I)1B&# '$:' '>I)1B&# '$ ' !)
!) (& :' I BB)' %:'+,
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!))' %:'522" 1 (I&!(,;' %:'52/'
!()':'N&#C$ 3' %:'5,8" N&#C!' %:' '52.'"
') (#:' 13 :')&39" ' '
#!B)1
!&3&1' 'B()' 1) B:'N&#C' % #$:'> (#
% ()3& ' #$:.58" &# & #)' C &#!B
(1)!' :'.56" B()') B #& ' 1$)1' #$:'
,*6" >)0!' #$)1:'*58'
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!!):'I BB)' %:'242'!K
!!& #:' - " ' %:'++/"+/2'
!B)'$) ' 7 :+,
!B)# 7 :'% && 1)!!' %:'> ## ' ' % ;)!'
I)!&)C)$'&#:'*2
!B&C& # (& :' ;'$&:'(3 #&!B:'+55'
!B&)': (;'*' ' $9# !B&' !B1 CC)!'
#$' # 1 (9' &#:'5*/:'5+.'!KK:'5/6!K"
B()'!)!!& #'B' % #!' ' ':'26/:'5+.'"
1 (9' #$' &7&'0 1' #$)1')B)1' :'2*.:
5+4'!KK" 1) B& #!' 0&B(' #C #$:'5+4;'
+'!K:'5/6"&#7 !& # %B()' N 1&#):'
2*.:'5++'!K" % > (# % #B:'2+2:'4*5;'
4*+:'5+8!K" B()'1) #K)!B #$' !B1 CC)'
0&B(' B()' 1!:'5*+'!K:'5+6'!KK:'5++;'
5+8:'5/."B()'0 1!' % % #!' ' ':'5+4"
)@; #!& # %':'5+.'!K:'5+4" %1& #' ; !L
!)!!& #!:'5+,!K" ;B 1)' % B()' # 19'
!:'5/."1) B& #!' 0&B(' 1 C #'**+:'5+,'
!K:'5+*!K:'*/2:'5/+:'5/8!K:'+64" #$
7 11):'2*5:5+4:5++'!KK" #$' 1B C:'
4*5:'4*+:'**8:'*+2:'*+/'!KK" #$' 1 #):'
265'!K:'26/:'/.5:'/,.:'2*..:'46..5+.:5+2:
5+5'!KK" & #)'0&B(',2*:,8,:'2*2'!KK:'
2+4:'2+*:'5+8" #$'B()' #$1)$')1!'
M 1:'2*4'!K:'2+4" 1) B& #!' 0&B(' B()'
3 ;&1):'5+6" 0&B(' 3)1 #):'5/." 0&B(' '
B()' ; 9:'5+6'!K:'*+*'!K'" #$'B()'
1) B' (&!3:',8,:',8*:',8+:',88'!KK:'
4*5!K" (1 (' &#:'5+5" #K &!&B& #' &#

**,";1) (&#C&#:'264" 3 # !B)1&)!'&#:'
582" &&B 19' 1$)21!'J#:' ' 1B)!'&#:'
5*8:'5+.:'5+2'!K:'*+8:'58*:'*8*'!K:'*88'
!KK:'+62!K" 0' &#:'5+.'!K:'*+4:'58*"
$3&#&!B1 B& #' &#:'584')KK" # I)!'&#:'
5*/'!KK:'5/6!K:'58,'!KK:'*8+"B 0#!'&#:'
5+2'!K:'58,'!KK:'*88' KK" 33 #)!'&#:'
58*" ' &#:' *+2'!K:'*85'!K:'**6"
! & ' #$) # 3& ' (%)'&#:'*8,'!KK:'+2."
&!)1 B& #' %!)1%!'&#:'*8,:+./:+,/"!())<
% 13&#C&#:'+4/")>)0!'&#:'5*/:'*+,:'*/.:
584:*5,:*M'!KK"&#$!B19'#$ 33)1)'
&#:'582" B 1)'&#:'5*/:584"&B)1 B 1)'&#:'
*+,:'5/.:'584" #!B I)' %:'582" %))B:'
2*4'!K:'5+8" 139:'**6" &# C)'&#:'5*8"
2:'*:',2" N&#C!' %:'2+*:'5*+:'5*8:'
8:'+4/" ' % #!' ' ' ' ' ' '
)1$&# #$' :' :')#19' :' :'! I) :'
> (#:')B)1:' # ('
!B)N# N:'I BB)' %:'52+'
!B1 #&:' !B1 & :'1&!)' %:' 28' !KK"
;B &#' #$' 1$' % :'4.:'44:'*4"
&3;)1& '7& 1'&#' ! #9:'**"$) B(' %'E5"
+6
B #& :' B #!:'5:'/:'5/,:'*/*:'584"
)B)1' 0P; (9'&#:'5/2" 1)# (' 1 ! $)'
&#:'5/4!K"B1 ;!'%1 3:'&E B 9:'.8:,.:
,/:'25:'2+:'46" 3 !! 1)'%'&#')11 1:'4,"
S' B #' @;)$&B& #'B 'B()' !BU'H 1 #$
3; #9&:.5:*/+!KK" (1 (' &#:'+2+"
#I)!'&#:'+,.:+,2:
+2+'!K" B 0#!' &#:'586:'58*:'*8+'!KK"
1B)!' %:'*8+:'*8*'!KK" B()&1' 3; !&L
B& #:'*8+'!KK" ; 0)1!' #$% # B& #!:'+6,'
!KK" 3 !! 1)' %>)0!'&#:'**."%))B:'5+*"
' ' 1 C #
B #& :'+
B 1&#' 3 1:'K))# % 9;1!:'+*+'
B(' 11 C(:'N&#C' % ## C(B:'54,'
B(')$ #$'A "K 0 # 1:'N&#C'
% ## C(B:'54,'!KK
B(1&:'+//:'+8,"' ' I&C)#!)!'
B()1&#):' B:' % C# :'/..'
B()1&#):'$ C(B)1' % (1)!' ' % 1 #):'
3 11& C)' 0&B(')#19' :'2/*:'28.'!K"
0&B(' 0)# $ 1:'*,*'
B()1&#):'$ C(B)1' % > (# % #B:'0&%)'
%)#19' ' % !B&):'5/6'
B()1&#)' &)! (&:' B:' %)# :'/.,'
B()1&#)' % !!I 1C:'3 11&)!' (1)!' %
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B()1&#)' % @)3I 1C:'3 11& C)' 0&B('
$ % ' % !!I 1C:'.4*:.*5'
B()1&#):' B:' % &)# :'@@:'262'!K:'/6,:
/64:'/.,"39!B& &!3' %:'+++:++8:/ +!KK"
B&7B&)!' %:'/6+' KK" #$'B()'1)B 1# %
1)C 19' 'B' 3):'*+:',+,' '.:'/6/"
B1 #! B& #!' %:'/65'
B :'+,8
BB)'&#$!B19:'+./:+,4'!K:'+,8:'+2*'
B !:'B()')1 #' 3 # ! 1&;B:'+55'
! !:'3B!:'*2*:'*58'
@:' 33 #)!' %:'25*'
7 I :'% B& #') $)1'&#' 1)3 # :'22:'45'
7 #B&:'% 3&9' %:'./'!K:',,

7 #B&' #&$ ' 8!K ' . ,' , ,'
7 #:5,8
@B #' M& & 3 ' C 7)1# 1' %)1 (#B
$7)#B 1)1!' &#' /#B0)1 ;' ,2/' # B)' ,'
) # ' ##&I)'$ ' 1$&# ' , /,'
$)!B B' ,65 !C
))!B&#)' ' ;)) B& # %' 4'" #$' B()'
Q 1 # &! #!' ,/2' +85" 1)!&C# B& # %' 4'
* !K " (&!' % 0)1!' 5
) I #' (&&P' % !() ' 52.'
<3 <! 3 C' I BB)' %' 526'
) ! !' +*5
) B!' .82:+42" &# 1) #$' 54*" &# B #$' 54/:A'552' 555' !KK " $) & ' 54/" 19<
B(#& ' 54/' !K
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' (#$1)$< 1B &# B()' 1)!B #L
B #!' % 0&B?)1 #$' ./5'
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)1 (&' % 3&9' %' &# 1)#)'%) $' 0&B(' B()'
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)1$ ' #% #B)!' $)' ' !))' % #! ')1$&# #$'
HB()') $)1' #$' B()' 9 #C)1G
)1$&)' (!)' %' 555
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3)!' 13 # 1$!(&; " 1) 7)1)$' I9'
B()' M) !(' 5..'
$1&!9' II B %' 2/,' +4,'
)1# ' 5+#'
)17)1 ' *8+
)!)# :5*" ! 11)#$)1!'B ' 1$&# ' I 3 ?'
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+*2" 1$ %'))' B)!B ' 1$) %%
( )$ #' # &' % H45.G' #$' B()' >)0!'
*22
( ) #$9)!') 3)B1& !' % B()#!') B 1)1'
&#' B 9' +58
($ #!' 25*'
(3 I$19' *6
(' ' ' ' ' 2,8' 22*' 2+,' 2/2'
//5' 286
' ' *' - ' 2,8'
' ' ') 8 ' 22.' 22*'
' ' ' ' X3 : ' K' 22.'
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) 1#&#C&#' *5+" 1 #$ 3 ; #9&#' 25/"
% &1!' %' @&7' +5' *46" 3 1!(' %' 252"
#B!' %' ')#19' % 7 11)' >) ##)' '
% 7 11)' &!' ' N&#C % 1 #)"
+6' ,6,' 225:255:25+:2*+' /+8'
(#$!' #C&!(' ;B &#'&# 1 #)'2*2!KK'
(##)' B()' #C&!(' , ,/' 24*' 24/' 462'
*52
(##)' ! #$!' 282" ')1#!)9' >)1!)9'
(#B &#' II B %' */'
(1)#B)' 1&7)1' 46.' !K
(1)!' ' B()' 1) B'H (1)3 C#)G' M)!B)1#
3 ;)1 1' 54:+/:85:.6,' !K ' .4 .:55." #$
B()' >)0!' *28' *4/
(1)!' ' M)!B)1#' 3 ;)1 1' N&#C %
() 3& ' #B %' @)3 I 1C') 1 9' &%)
.5+:.*6' !K " 3 1C1 7)' % 1 7& ' .*."1)L
C#&!)$' !' ()&1' "0&#!' ; ; '! ;; 1B% 1'
(&!' #$&$ B 1)' % 1' 3 ;&1)' .24' !K ' .*."
)) B)$' .25' .*." 1 0#)$' B ##' .25"
;1)!)#B B 1) 9' ' .*." (1 B)1' #$
&3!:.2+!K ' .52' !K ' .*,"$)%) B!' #$ #L
& & B)!'B()'M&BB) ! I (!' .2/' !K ' .4+:.56"
1 0#)$' B &@< < (;))' .28" %&1!B)@L
;)$&B& #B ' B 9' .46' !K " 1 0#)$ 3 ;)1 1'
.4." ; I &!()!' $)# ' .42' !KK '
*48" 7&!&B!' 7&C# #' .48" 1 0#)$ B
1)!' " !) #$)@;P&B& #'B ' B 9' "
!) 1)!')) B& # % M)#)! !' .5.' !K "
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B()3' .52' .+4' !K " B & # ; & 9' 54'
5*!K ' +6:.46' !C ' .4/!K " #$ 3 $)! '
% 7 9' *6" #$' '$& &)#? ' 52:.46'
.+2!K " ; & 9' &#)13 #9' .46!KK ' .4*'
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$)# " #$' B()' ;!) $ <M $)3 1'
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I!I 1P' .46:.4*' !KK:" 3 N)!'B1) B9' %
1&&## 0&B(' B()3' .4/' .*5' !K " ;(&#4
#$' .4*" #$' N&#C$ 3' % 1C #$9' .48"
#$' B()' 0&!)' #%)$)1 B& #' .46:.82' !K "
#$' B()' B 0#!' .5.' !KK " #$' B()' (1 ('
&#)13 #9' .4*' .4/' !K ' ,+/" #$' B()'
>)0!' *48" ; & 9' &# ()3& ' .*,!KK "
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!)!& #&#' .*2:.*5' !K " 1)!B 1 B& # %
1$)1' &#' .*" #$' B()' !B B)!' &#' .*+'
.*8" (&!' $)' % 0!' A ' K'
.**!K " #$' B()' (1 (' &#' .*.:.*8' !KK '
./6" #$') #3& $)7) ;3)#B&#' .*+"
#$' I &$&#C!' &#' .*/" #$' &B9' % 1 C)'
' +2" $' #&7)1!&B9' % 1 C)' .*+"
#$' !;1) $' % B 1)' #$' (3 #&!3' .+2"
#$')B1 1 (' ' +54" #$' B()' ; 9"
7&!&B!' B ' 7&C# #' .24' .48' .*." #$'
)3)#B ' .24' !K ' .28' !K ' .*' ,+/"
#$' ##)#B ' .46' .4*' .4/" #$' 1)L
B 1#' % 1I #' B ' 1#)' .4/' !K " #$'
1)C 19' ' .56' !KK " #$' B()' 1) B'
(&!3' ,8," #$' 1 #)' .25' .4*' 25,'
25/E2*2:2**" #$' $0 1$' >' % #C #$'
.2/" #$' 91 ' .22' .25' .4+:.*." #$'
B()' 1)' 3 ; #&)!' .48" (&!' 3 11& C)!'
.28:.4+' .*4' .+4" $) B(' %' .52' .+4"
01&B&#C!' %' .2+" .2,' .+/' ./," (&!'
$ C(B)1!' .4*:.+4
(1)!' ' M)!B)1#' 3 ;)1 1' N&#C % ; &#'
5*/' 5+6
(1)!' ' N&#C % #C #$' 45/
(1)!' ' N&#C % 1 #)' #$' 7 11)'
)!& # %' 22+" (&!' 3 11& C)!' .*6'
22/ 86;' 1) B& #!' 0&B(' B()' 3 ;&1)' .,6'
22/" #$' #$)1!' 22/" #$' #C #$' 22/'
!K ' 4,/!KK ' 425" !)!!)!' &# ! #9'
22/' 86' 24/' 426" $) B(' %' 228!KK ' 425"
(&!' (& $1)#' 228' 24 ' 425
(1)!' ' N&#C % 1 #)' &#7)!B)$' 0&B('
;(&#$' .4*' 248" #$' 13 #$9' 25 '
; & 9' !' $;(&#' 25,!KK " !B1 CC)' 0&B(

1) ' #$ B() ' B B)!')#)1 : 25,'!KK" #$ (1)!' B 7 11): 252!KK : 2*6:2*5 !K" 1)C)#B: 254'!KK")#B)1!' 1&!: 255" !&C#!'B1) B9 ' 14B&C#9: 25+")!!& # %: 258" (1 B)1: Y ; & 9 &#' 1&BB #9: 2*6: 2*4!KK" % 1)&C# ; & 9: 2*.'!KK : 2**: 2+.*" ! ; ; 1B!' #)#19 &#' !B&): 2*.:5++:5+2" 0 1 0&B(' #C #$: 2*2 !KK : 5,,*" 1) 7)1!' B)11&B 19: 2*2!K" 1) B& #!' 0&B(' B()' 3 ;)1 1 (1)!' : .4*: 25,: 2**"&3 ;)1& '7& 1 1 N&#C$ ## % 1)!: .48: 2**" #$ B()' ; 9: ,+,*" #$ B()' 1) B (&!(: ,8,: 2**" &#B)1# ' ; & 9 #$ 1)% 13!: @&: 2*.'!K : 2*8" $) B(' %: &@: 2*+" *2: 2*/: 2+,: 45+: 4/4: +26" (&!' $ C(B)1: 2*+

(1)!' : N&#C % 1 #): !' $;(&#: 2**" (1 B)1: 2*/: 2+4!K" (&!' 1)&C#' (;: @ 3 " 3&# 1&B9 %: 2*/'!KK" ; ; 1 $&!B 1I #)!: 2*8'!K" 3 11& C): 2+4:2++" !! 3)!' B()' C 7)1# 3)#B: 2+,: 2++" (&!' #!) 1!: : #$ 1B: 2+4!K")@L ;)$&B& # C &#!B 1&BB #9: 2+, " ;))' 0&B(' 2+4" (&!' &#! #&B9: 2+, !KK: 2+/: 2/2: 2/5: 2//" B()' C 7)1# 3)#B $ 1&#C: 2+2:2+/!K: 2/4: 2//: 286!K" &#B)1# %& B!: 2/,' !K" %) $ I)B0))# 13 C# !' #$ 1L C #$& #!: 2/,!KK: 2/8!KK" 3 7)3)#B % 1 1)% 13' X+'(' ' 3 K' 2/4!K" %&# #,)!' #$)1: 2*8!K: 2/.: 2/2 !K: 2/8" % 1)&C#' ; & 9 %B()'1)&C#: 2+*'!K" (&!')@;)$&B& #!'B ' #$)1!: 2+6!K" 0&#!' I BB)' % !)I)N): 2+6" (&!')@;)$&B& # C &#!B $)1!: 2++" B & #' ; & 9: *2: 2++'!K" K &1)!')# : +.: 2+/" B()' 3 ;&1)' #$: 2/6" #$ B()' 1) B (&! 3: ,84'!K: ,8/:2+8" 0&B($1 0!' I)$&)#)%1 3' B()' ; 9: ,85!K: 2+8" #$ B()'&#B1&C)!' % > (# B()') B)!!: 2/*: 2//: 286'!K" 1) B& #!' 0&B(' #C #$: 2+.: 2+/: 2/6: 4*/" ; #!' B '&#7 $)' #C #$: 2+.:2+2" 1)#) 0 ' % 0 1: 2/.: 2/2!K")#19 0!' &3: 2/*" #$ &#7 !& #!: 2/*'!KK: 28," I BB)' % C&# 1B: 2/+" #C &!(' #K)1' 1 3 #$9: 2//'!KK" #$;B 1)')#: 286" 3 N)!' ' % 1 9)!' 0&B(')#19 : 28.'!K" $&! 0#!'B()'$;(&#: 28," & #)' 0&B(' 9#' PP1' 5,5" $) B(' %: 28," 2 ' ' 19 > 7)#)' $)!' 1!&#!: 2+5 : 22.': (&!'! #!: 2/2!KK: 2// (1)!' : N&#C % 1 #): !' $;(&#: 2//"%) $!' 13 C# !: 286" 1)C)#B: 286'!K" #$ B()' 3 1$)1' % > (# B()') 1)!!: 28." $&!&#()1&B)$ 19 B1) B9 % 1 9)!: 28," &)!' 0&B(' 1)$)1& N ' C &#!B'B()' 0&!!: ?G?

(1)!' : N&#C % 1 #): !) B1 B(' !' $;(&#: ,68" &)!' 0&B('B()' 0&!!: ,. . (1)!' : B()' $: N&#C % 7 11): #B % 71) @: (&!' &3'B ' 1 #): 24.: 256 !KK" &)!' 0&B(' $0 1$' : 256'!K: 255: 2*5" #$ B()' 0 1 &# !B&): 5++' !KK" () $!' #!;&1 9&# 13 #$9: 25." &)!' 0&B(' 1) ' C &#!B B()' $; M: 252'!KK" 3 N)!' ;)): 25*: 2*6" (&!' &3' B ' 1L C #$9: 25/: 2*6" !)!' 1)# (' $ 3 &#!: 2*5'!K" (&!' 0&%): 256

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(1)!' :B()' 3): N&#C % ;)!'H & 9G: #B % 1 7)#): ;1&! #)1: 5/4"1)) !)$: 2: 5/*" 1 0#)$' 19 & (! : 2" (&!' !B1 CC)' % 1 & & 9: * 'IKK: 2,6" 9 % > 3)!' % 1 C #: * 'IK: 5/*" ; 1B9B 'B1) B9 % B I) BB: .5/5/+" 1) B& #!' 0&B(' B()' ; 9: 2 'IKK: .+" $) B(' %: ,2" /:5,: 2.6" (&!' ! #!: 2

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& &$ B()' #! ' , ,6 !K ' ,24' ,2+' KC' ,42: , 45: , 4+" 3)$)1 B& # %H.2*+G' , , ." ; ; !&& # B ' B C)!' ,28' \K" 3 3)1 & ' 1) B& #!' 0&B(' #C #$' , +' , ,5' ,24' ,28" >)0!' &#' *4 ." ; ! & !' %' +86" 39!B& &!3' #$' ()1)!9' 3' +8/' !KC' / 62" $&)!)' %' , /6" 1 (I&!(; !' %' 82' . .6' , ' ,' . .2 !KK\ .26' .25' .5 . ,88" !))' &)C%1&)$' M& & 3' %)#( ) ;" #&7)1!&B9' %' . / ." 3&## #!' B' +8/' !KK' 3 I&##&' & ###&' ;1) (&#C %' 264: /6+' ## ' % 3& 9' % B( )' #$' B( )' ; 9' 2 !KK' . +" 0 1' 0&B(' #&%)' ' !K ' . , : . *' !K " ! ; ; 1B)#19' ' 24" ' $& &)#? ' #$' 52" 25' 42' 5 . 8 . 8*' ## ' & ; ' 1$&# ' 2' " $) ;1&7)$ % I)#)%&)' +" ! ! 7)$' . +" 1)!B 1 B& # %' ' !K ## ' & ; ' I&!(; ' +54' ## ' > (#' !)# B 1' % 1#)' 2' ## ' $ ' 1$&# ' !))' 1B&# ' ;)' ## ')B)1' 1$&# ' 2" $) ;1&7)$ ' P#)%&)' +" ! ! 7)$' . +" 1)!B 1 B& # %' ' !K ## ' & 11 ' ' !K ' . *' 2.5' ## ' &BB 1& ' +*+' 3 I ' B' 0 1N %' 5 ,+' !K ' 548' !KA 3 I ' % &)B&' 3&## #' / . ' 3 I # !' B' 3&!!& # 19' 0 1N %:5 , / :+*, ' 3 I !' *5. 3) ' 0 1N!' %' + ,8' +*, ' 3 ' ' ' &7 ' + ' !))' > (# % #$ # 3 3)1)' % ' < 48:+5' !K " &#' B( )' 1B(' *. +' (;' 7&#' ' ' #! " >)0!' &#' *44' !K ' *48' *55' !K " #! !' 582" 3 3)1 & ' 1B!' 58/' *. ,6" 3 3)1 & ' 0' 58/' *. 8" 3 3 $&B&)!' %' , ,5' ,26' !KK' , 24' , 42' 2 ,5' +. / ' +, 4" $&7&!& # %' ,24")#B)'C $!' & '" %&! (' *. +" ()11&#C!' , 2. ' , 4, ' !K " !))' 1B& " ! B' ,26' !KK' , 25' !KK' , 4, ' *. +" 3' , 2, ' !KK' , 4, 6' *. +' +, 4' +2*' +4, " 0&#)' , 2, ' , 24' , 28' 46 , ' 4. 8' +, 4' +, /' +45' !K " 3 I)1' , 4. : , 4 / : , 55" ;1) & !' 3)B ' *. *')K" !))' ;&B &! 3' B('#$ M ' 1N)B!')1 (#B!:M)&C(B! #$) ! 1)!" 3 3 #!')# ! 1)' %' +2*' !K ' ' # $ 3&##&!B1 B&7)' $&!B1& B&## M)!' 5. /' '5, . 3 3 #)!' ./+' !K' " &# B 9' 48' 866' 54' *4' !KK' +5" &# B( )' ; !' . /+' K" &# B( )' B& ' #$!' , 5, " ' ' #! " $) &#)' %' , 44" &# #$)1!' . /+' !K ' , , +' !K ' 242' 2+, " &# 1 #)' 25* 3 ' , 4' . / /" B( )' &! #B& #$' 45' 5*' 3 ; C##&' &# ' 5' . 2' , , ' 24' 3 ; #9' H % ; 1B#)1!G' B1 $&#C' +*" I #N&#C ++" !))' ! ' ' ' : ' 3 ;& C#)' !B B)!' B' 254" 2*8' 2/*' 39#' % 3& 9' %' &# B #$' 55+:5* , :5*5' 39#' > (# H)$G' 4 . , ' 5*5' 39#' M B)1') 1' %)#B)&B(' ')#< B)&B(#$ BB&)1&' 4 . ' 56!K ' +2' , , 2 ' ' ' ' ' ' !))' " ' ## C(B' (;' @7 3' ' Ý !)!!)!' % 1& # $1 3 (' &#' 52 . ' !K " %&)% %)#19' ' 546" % B& # 0 1!' &#' 54 , ' 545' !K " C1 #B!' % > (# &#' 54 , ' !K " %)#19' &# ' &#' 542' !K " B()' $)' 1C(!' &#' 544' !K " N&#C!' %' 52 , ' 544" ')$(' H! # % B(G')$(' H! # %) &3G' B(' 11 CI' B('])$' #$' # 1' %)#3 C(') &3' 19' 0 # 1" 1$!' %' ' 1C(' H & (1$ $)' M B)1' $)' M& & 3' $)G ##)!' %' ')B(' &## # 1' 1' 0' ' 0 # 1' # 1'S' %)#3 C(:U'N&#C' % ## C(B' 54, # 1' 0 1&)#' N&#C' % (3 #$' 545' # 1' ! # % (9' ' % 1) #$' 52, ' # 1' ! # %)13 B 11 C(' %)&#!B)1' 52*' !K #1 $' ' N&#C' %B()' 3 #!' / ' !K ' 5+6' #1 $' % #B& (' (&!' $ C(B)1!' , *' #1 $' ;1&#)' % ? 7& ' (&!'C1 #B!'B 'B()') B #& ' 1$)1' , 52' !K #1 $' % %&$ ' 1 # &! #' +84' !K' #1 $&#' N&#C' % & & 9' $)%) B #$' $) B(' %' 5/2 3 ' ' ' 22* #!B #)' +4' / 8: . / , ' . /8' .85' .88' , 64' , , , : , . 4' +58")#)1 ' # &' %H.4.5 = ' .4 ./G' ' # & !" 3)$& B)!' I)B0))# #%)$)1 B)!' , 6 ." ;))' % H.44*'G' , 6 , " ;))' % H.4*.G' , 64" B1) B&)!' % H.4+4G' , 6*" I&!(;' %' ' #!B #)' N)' %' .8+' !K ' 5 , / ' /66' #!B #)' $ C(B)1' %)B)1' ' % 1 C #' 58. #!B #)' % !B&)' M&%)' % > (# % #B' 44+' 4+5' 5+8 #!B #)' % & & 9' 0&%)' %)B)1' ' % 1 C #' ' 26 ' 5 / ," K))#<1)C)#B' 5/2 #!MB&#)'B()' 1) B' 3 #' 3 ;)1 1' 85' 288' 48/" #$' B()' >)0!' *2 , !K " &!& #' % #!B #B&#)' %1)! ' ++," !))' - ' #!B #B&#)' ' !B)1#' 3 ;)1 1' #$B()' >)0!' *25 #!B #B&#)' ' # 3 (!' !B)1#' 3 L ;)1 1' *6. #!B #B&#)' ' N&#C' % B #$' $)%) B)$' B' 1 # #I 1(' 526:55 , ' #!B #B&#)' &#' %1& ' B N)# I9' B()' 1 L C #))' 5/4 #!B #B&# ;)' H 9? #B& 3G' B()' B #' 3 ; #9' &#' 5/ /' !K " BB N #')#)B& #!' &#' ,+" 1) B& #!' 0&B(' - &)7' 588' !KK " % %H.452G' , 45:*2 . :+*6" B & #' (3 #&!B!' &#' +58" 9? #B&#)' 1B' *66' * . /" @&7' , / ' , /+' +66' *2 /' +5+' +58' +*5" ; B1& 1 (!' %' 588' ' +58" ')#19' % !B&" ' (1 (' H !B)1#G' 3 ;&1)' H !B)1#G' #!B #B&# ;)' B&#' 3 ;&1)' %' (1)!' % &!0!' &3' B ' 2.6' 2, 6" B&#') C)

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1# 0 : B&#' 3&#) !' %: , , 5") 1 $ 3' %:
) ! ( ) B!' B ' 1 0#: 4 . ." C&7)#B ' 7 !B #:
4 . 2" 4 / 4 ") 1 !' %: !))' 7 !B #: & (1$"
$ N)' %: F)' $0 1$' B( )' N 1&#)'
1 #) : # % #! ')1# #$)? $): 1$' %
C & 1: 5+5
11 $ ' ; : ' M % 1B'
11)CC& : (& I)1B ' $: 1$' % 13 ' #$
!B : , *")#19' #$: 22' !K "
3 I&B& #!' #$ % ' %: 45: 4+'
11)1: #C) : ' 1)C 19 ' : ;)'
1!& : ;1 3&!)$' B ' > 3)!' ' % 1 C #: * :
* / *" 8*
1B) &!!): >) #: 26, '
17 1 :)B)1' %: ' & (!' : #B&; ;)'
17)9: 3 # !B)19' %: +*, '
10)#: 568" I BB)' %: 5. , '
!! : $!! 1): ' > (# ' ' : ;)'
!! N!: B( ): , *+'
B)#B&#: B( ): ;1 ! ;)1&B9 %: +26'
B! 0 $' (& !: 4+6" 0 : +4+'
9: 2/6" !&1)' $): ' #C)11 #$" '
' 1&)" ()&1)!!' %: 2/6'
&' %)#: ')#&)'
& !' H #$ 9# $!G' 3 ' B ( )<
$ # H45 .G: *22
3 ' ' , ++' ' . ")$% 1:
I9' (& &;' : . *: 2.4' !K " I9') 0&!' :
. , 6: . , 5: . , +" !' ' 3) #!'B ')#$B( )' 1) B
(&! 3: , 82' !KK " (&1$ B)1 # # &'
H. . +8G #$' B( )' >) 0 !: *4, ' !K : * 45: *58' !K "
#$) 3 #! ! 19: *42: *45" 1B (' B)1 #
& ' H. , . 5G: *6 . : +8. " #$' B( )' >) 0 !:
*4, ' !K : * 45: * 54: *5+: *58' !K " B 9 #!'
H. , +4G: +/: *55" B &)##)' H. 2. . <. , G:
2*: , +6' !K : , +*: +86" 1) 1C #&!) !' B( )'
#K &!&B& #: , / 4" B( )') 3 ; 1!' #$: 2. /'
!K " B &! ' H. 468G: +2: , 88: 262" $) ; !)!'
#$')) B!' ;)!: , 88" 1)% 13 !' %: 266"
B #!B #)' H. 4. 5<. / G: @7&: +4: . 88: , 8 . :
262: +58: +* . : ' / . 6" 0 1N %: 26. " #L
$) 3 #!' M 9 &%: 485" B !)' H. 42/G: +4"
B)11 1 ' H. 4 / / G: B * 8" B 1)#)' H. 428G:
; 1 3 B) !' 1) #& # 0&B(!B)1# (1 (:
*2. " B 1)#B H. 545<*2G: , / 5
(' # , / 2: , 8 *: 26 , : * 2 / ' !K " B
1)! ' H. , **G: *58" B !( ) : 52/' !K "
B 7&1 : * 2, " B 3 I)B (' H. , / . G: 288'
!K " B)$&# ' $) ' 3 ; ' H. 2/6G: , 8, " B
1&!' H. 285G: , 84' !K " P28/G: , 85: 2+8"
H. 46/G: 26. ' !K " B 1 C)' H. 2/ / G: . / 6"
B) $&#C H. , +8G: 28/' !K " B 3)' H. 658G:
56. ' ' B)$: *25" B &#)&3)!'
H. 2+/G: , 8. " B M B)1% 1$: 528" B M (&B I9'
H** 4G: 556" BM&1?I 1C: / , " # &' ( ) $' I9'
) #P& B ' ' B) 1; &C# #H. 46/G: 266' !K "
I9' 1)C 19' ' ' B &7&$)' H. 468G: 266'
#B)1<)% 13 B& #: B( ): . +8" #$' B( )'
>) 0 !: *42
1 9: > (# $): 1$' % !B)1: 546' !K : 542'
' '4 ' &#' 1 #): 2+5
1B)# 9: B( )1&#)' %: * " 3 11&)!' (1)!'
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1B)# 9: (& &;' %: B&B 1' B&# 3 ;)1 1'
%B( )' !B: *
1B)# 9: M& & 3: I&!(; ' %)1)% 1$' #$
#$ #: ; & 9' #$)1' $0 1$' : 45, :
455' !K : 458" 1 (I&!(; ' % #B)1I 19'
#$' (#) 1: 4*5: 4+2: 48, ' !K " ; & 9'
#$)1' & (1$' : 4**: 4*/' !K : 4 / , " #$'
M 9 &%: 4/8' !KK " ! 3 3 #!B I) N%1& 1!'
!!) 3 I 9: 482' !K " 1 !()!' @% 1$' 1$9:
484
1B1 &: I BB)' %: . 5: 2, , '
B #)!: 2. /
7)#B19: 4+/" I&!(; !' %: ' & (%&) $:
I&!(; !' %
1 0: #&7)1!&B9 %: . / . " BB(& !' %: '
BB(& !'
1 $&)9: +44'
1 #: &)11)' $): 2+,
14 9: I BB)' %: . 25: . * : ' !K : 24/' !K : 254:
2*4: 2/+: 4*, : 5, . ' !K " 4. 2: 42+'
1)&: 255'
1) 3 : , 4: 45
1) 3 # : , : , /' !K ") % ; 1B9 &#: , 5: 22"
#$')#19' : 22' !K : 88" (&I)1B ' $ '
11)CC& ' &#: 45" #$)1 B( )' &! #B&: '
5*" B( )' 11 ?? ' B: 22'
1)!)#B& !:)B1 !: % C# : ('&1 '
' ' %: +26
1)B): 1 7 C)$' I9')#) !): , +" +58'
1) 0N)1#): +/5'
1& &)B(: !B): 5. *: 5. /'
1&3) : B( ): @& : , 58: 44, : *58'
1&# #: I I B % #N) $: 552: 554' ' ,'
1 N: 52/
1 !: >) # $): 1$&# : , /8

1 0 #$: II)9: +/4
1 I #: C$I 3 %: 5, 8" # ## C(B
1 ! $): 1!B: 846!K:: *:5+:*58:**2" '
*4.' !K: *5*" ', 52: 5.2: 5*..: *4+"
%)3)#B : , /*: !K: 264" %)B)1 '
5/4" C &#!B 1I B9 H./86&: 2+*" #
C 1& #: C &#!B B()' BB 3 # 1N!: 2+*
C &#!B)O&!' : . ,4" C &#!B 1 C #
/65: 28/' !K: */5" &#' #$)1!: 2+.'
4*5 !K:" C &#!B & & 9:+" C &#!B B()' 1
!&#&: +" C &#!B)#&): , 8" C &#!B B()'
&! #B&: *5" %B()' !B 1) @: **.'
1 ! $)!: &# B()' B& ' #$!: , */" C &#!B
B()' M) $!: +, 5" &#' &7 & : , 56!K " #$
1 !!& : , 52 !KK: , 5+" #$ &B(#& : . *6:
, 58:2+*" ;1 3&!)$ I9 $ % % 1!I 1C:
+8" ; ##)$ I9B()' 7&C# #)!)' ;)!: , +6
KK: , /6: , /*: 242" I9 (& &;' : 242:
/45" I9 1I # : .4' !K ") %%) B %: #
3 3)1): *44" #$ B()JP) 0!: *46 !KK:
*45 !KK: *52: *5*' !K: *58 !KV **2" @&7:
@7&&: 2: *6:. 6, : . , /: , 56: , *6: 2/*: 282:
55/: *2/: +2.'
$1)%&#: , 6+'
$))!: 556: 55*
3 #!: &#9 $)' #$' !)BB)' &# ! & : *6. :
*68" 0 1' 0&B(: *6. : *6+: *. . : *. 2" #$
&7& 0 1' &# !!& : *6. : *6+" 1)!&!B B()'
1B 1!: *. 2" *65
3 I)1 #$: 3 I1& :)$)$ B ' B #$:
552" B ' #C #$: 5*6 !K " 55/" ' '
B1 B(9$)
3 I1)!: &! #$!: 5*6
' ' ' ' I ' % > (#' ' ' : , /2
1? : $)%) B %)#)B& #%))B %%: , +
! : & (!' %: ' & (!' % ! '
93)1: II)9: 5.5
9# #' ;' 1)$ $$: M) !('&#! 1C)#B) $)1:
5.8
9# &B!' 0 &#: 5, /
9;1& #: B: 3 # ! 1&; B!' %: +*2" !B $9 %:+**
9;1& #: 3)B1 ; &B # % ! 0: &#%)#)'
%: *, 8
9;1 !: .5: /+*: 5/+" !; &B)1!' &#: , /*"
N&#C %: , /*: , 88: 5/+" K))# %: '
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91& : B: ; B1& 1 (' %)@ #$1& : *2+'
91& : B: % !!& : *, 2Q
?) (: ?) (!: ' ()3&

)C! !B #: I BB)' %: 548'
%9$$' ;' <0 93: ;)B: 5, .'
C : &! #$: , 5.
C ()1B: N&#C %B()' 1 #N!: B()'>)0!' #$:
*2/
' &!: C1 ;' % #!' &#' 1) #$: 52.'
3 B& : 4: , +")#)B& # ; !!)!!& #!' &#:
4/: *.
1& $: N&#C$ 3' %: 548' !K " ' B!'
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3 ;&)11): % 3& 9' %: ' 9: I)1B
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#$: $ C)' %)#&): , +'
#$: #$1) :)#)B& # $3&1 : , +' !K'
#&): ; 1&#)'H B)1'N&#C$ % & & 'H ' &?G

#$ (9#& : *. 6 !K "1)&C#' #$; & 9' %:
*. 5!K " $) B(' %: *. 5: *. *# B "(&!' #!: *. *
#&): ; 1&#)' % ! 0: K &1)!')1)9 <
! 7: *, 5" (&!' #); ()0:
#B)' &C(&)1&: &#%)#)' %: ." #$ &B9
(B& !: , " B 3 ; $&#: 8" (&!' B !B)!:
!K "3)3 I)1 %C& $: .6" #$ % 1& 1 B):
., " #&%)' ' #$: ' .4: .*: 2.5"
#$)3)#B : 4, " #$ > (#' ' ' : '
)@&)$: .4: , , " (&!')BB)1' &#' ! ; ; 1B %
)#19 : 8+" !; 1) 1! 1' % B()')# &!L
! #): @7&B&: +5. " #B()' 39!B& !: +/2' !K:
+86: +8, : +8+' !K " $) B(' %: +5, " -
' ' ' %: .:4' !K: .2 # B): , .: , 2: , /:
4, ' ' .6, : *5. : +/2" - ' ' %:
.: .6, : .6/: +5. ' !K " ' %: .: .2"
4 ' %: . " @7&: +: , 5: 22' !K: 2/: 4/' !K:
54: *4: .6, : .6/: 262: *5. '
#B): &)1 ' $&: 4: +55'
I): 1&7)1: +8: . .5: *. 6: *28' !K
#?&C: B1 $)' %: , , +: , 2+: , 4. : , 42: , 4*"
#C &!(' 3)1 (#B!' B: , , *: , 2*"1) B& #!'
0&B(' $0 1$' % #C #$: , 2/" C1 0B('
%: , 4. ' !K " 3 !! 1)'&#: , *6" 0 1' 0&B('B()'
) B #& ' 1$)1: , **" , *4' !K
1#) : +, . : +4*'
1 : 58. : +4'
1B% 1$: 4*.
; (&# 'H &)## !G: , +6: /86: +4/" K &1)$
I9 1 #): .4*: 248: 2**" ()1)I9'&#: , /4"
; 1) (&#C&#: 2HG4" $; (&#!: *6: 2/2' !KK:
2//" ' (1)!' : : : N&#C!' %
A1 #): 3 I)1B : : &!' ' : N&#C' %
1 #)
7&$: (!)' %: *2*: *28' '
7&$' : N&#C % B #$: 552: 558' !K:
5*/:5P") 1' % B(& #' #$' B1 B(9$):
555" ; & 9' %: &# (1 (' #$' B B):55*'
!K " K &!&B& #!' &#' #C #$: 55/'
7&$ # ' 1): N&#C % B #$: I)B1 B('
#$)!!& #' %: 425" ;B 1)$' B)7&)0!'
1 !!: 42+" &#' 1 #): 244'
7&$;' 90)9#: ; 1&#)' % 09#)$$: 5.5'
7&$ I' 0 &#: ; 1&#)' % 09#)$$: 5.2'
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7&$ % B #$:) 1' % #B&#C$ #: '
#B&#C$ #
- ' ' - ' 39!B& 'B1 B: +8/' '
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) 1)B !: - ' % 1)C 19 ' : , /4"
' ', /4")* " ' % > (#
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)$$&#CB #: 4.4
- ' - 'H) #$' B B B)' %
M)!B3&#!B)1G: 285: 466'
&< 1&7)1: 56/'
))1: 556
)C ##09: 56/" !B): 5.5' !K
)() I 1B('H B(' M)!G: ; 1&# &; &B9' %'
(; : @7#' ' #K)1)$' I9' B()'
13 #!: 568' !K " ; 0)1' % 1$' (9!&#:
5. . ' !K " & #)' M&B(')#19 : 5., " ! IL
J) B B ' 90)9# % 10)1B(: 5.4' !K " #$

B( )' $0 1$& #'!)BB) 3)#B'5. /'!K " &#)' %' 5 ,2" ;1&#) !' %'!)) ' 1 %%9$$;' 90) 9#' 1 %%9$$;' (9!' 90) ' 1) $ $$ I' 0 &#' (9!' ;' 1 %%9$$' (9!' ;') 0 $01)& 3)' 1&7)1' ,5* $ & &) @')1# 1$' 1 # &! #' 2.8' !K: D^)' 3 $)' ' " ' ' ,++' .)# I&C(')# I&C(#$' C&7)# B ') 1' % &# #' 5.+" 1 7 C)$ I9' 9#' P1' *,2')#& ' #B' %' #$ (&!' ! #' 458')#&!' N&#C' % 1B C ' 1) B& #!' M&B(' !B&)' *+2)#&!' B( )' 1B(!& #' /.6' !K " 0 1N!' %' /. ')# 3 1N' #)!' K &1)!' #& ' , ,6":B( )' !)'!!& #&#' , , ," B( )' !B)&#' 0 1' , ,8' !K " K &1)!' ( ) !0&C< !B)&#' ,25'# B) .' , 4 ," 1) B& #!' 0&B(' 0)$)#' , ,6' !KP , ,2' !K ' ,26' ,2 ,' ,4.' !K " #$ 10 9' , ,8' !KK ' ,2 ," #& # % (# 1' , ,4: , ,8' !KK " 1) B& #!' 0&B(' #C #$' ,26: ,2+'!KK " #$ B( )' 3 ;&1)' .28" #$ B( )' B& ' B1&I)!' #$ #$!' ,48' ,5.' !K ' ,54' ,5*' , * /" #&)! %'&#' !B(#& ' ,5 .: , *.:, *4' !K " 1) B& #!' 0&B(' B( )' #!' ' , .8' !KK ' ,26' ,2+' ,46!KK ' ,4+"B1' !B9' % B1 ! #$ 0&B(' , , ," B1 $)' %' ' #& " 3 3 P& ' $)7) ; 3)#B' ,4," #$' ; & 9'))) ($" # & ' , , ," & C)'&#' ,26" ;) ! #B!'&#' +2+' +28" #&7)1!&B9' % ;)#(C)#' ,4," 3&!!& # 1&)!' ,48" #)!'&#' 1) #$1 !)BL B) 3)#B!' #$' 0 1!' %' 526' !KK ' 525" $)L %) B)$' B #B 1%' 52,'" (1&!B& #&!)$' 52,' !K " ' ' I &#: &3)1& N' M B)1% 1$" &#' #C #$' #$ B #$' 526' 55.' !K " .*/' +. *" N&#C!' %' ' # B)' ' ' (1&!B& #' (1&!B ; ( )1' 1& ' ' 1& ' % 3)1 #& ' 1C 1)B' %' M B)$ 3 1' R # ' ' ' ' 2 +26')1 I9' *5*' .") 1 !' %' FFF')#19' ' # !B)1' > (# % #B')#19' $ N)!' %" (3 !') 1' %)1)7 9 #)' H0 $ 3)#G' &# !!& ' *65')1 3 B 1B(9' N&#C' %)! 3 #$' 52/' 54.)1 3 B 11 C(' N&#C' %)&#!B)1' 0 1!' %' 522' !KK " $1&7)# %1 3' 1) #$' 524" !) 1)!%1)&C# &$' 524' !K " ! !!)!' %' 52*' !K " $) B(' %' 52+" "' ' - ' ' 525)119' 5,+' 5,8')! (3 ;!' &)!' 26,')! 3 #$' 545" N&#C' %' ')1 3 B 1L B(9") 1!' %' 525')!# ' 1&7)1' *64')!;)#!)1' % 3 & 9' %' 4,')!;)#!)1')#19' !&!(;' % 10 & (' 4*2" (&!' 1 ! $)' &# #$)1!' 2+' 4**')!;)#!)1' C(' J !B& & 1' 4,')!;)#!)1' C(' B( )') $)1' 4. \' 4,6' !K ' 4,2' !KK ' 424" (#C)$' 42.')!;)#!)1' C(' B( )'9 #C)1' (3 I)1 &#' 1&!)' #$ 3 I&B& #!' %' 4,' 8 6' 4,*' !K " K &1)!' 1$!(&;' % 3 1CP&#' 4,' 5,6" ;; !&B& # B ' 4,2' !KK ' 426' !K ' 5,6" (#C)$' 42." 424 + ' 5* ' ' '*(& ' " *0 - ' 8 ' ' ! ' ' ./' (' .46 - ' " ' ' ' 4.6' ' 446' ') B! (' 9 ' ,5/ - ' ' %%& & ' %B( )') B #& ' 1$)1' ,*.)7)#& N' 3&!!& # 19' &# B #$' 556')7)#B)1' #! '!B ;)' B' ,24" 1 B()1!' % B( )' 3 3 # &%)' B' /62' !K ' / ." ,2+' 264 - ' ') 0')7 B& # - " ' ' ' 28*' &)C ' $)' B' #$ BB&)1)' .8' 2+' 46' &5' & (!' 7 #' ,65' !KK &)B( )1' % !! ' 1 (!&!(;' % 1)7)!') $!' 1)7 B C &#!B I)1B' % !!I 1C' /8 &J #' 25/" B( )' (1B1) !)' B' 2/' &3 &B1&' % B( )' # H #!N 9G' 1) B 1&#)' % ! 0' 3 &# 1&B9' %' *,+" $)%) B!' B( )' 1B 1!' ' $) B(' %' *, /' &3 &B1&' () 3 9&N"'" ' () 3 9$N ' &# #' 258' &# 1$' 2**' &#)%01' ' 9#)7 1 &#&' & 7 ##&' #)' % B( )' S &C(B &#B!U' &#' 1)#) ' *+ & $ 1 !' & !' B1 #! B)$' +*/' & C)#)!')1B& !' B1 #! B& #!' %' +5+:+* ." 4 ' ' & #9!& !'B( )' 1) ; C&B)' +*8:+/ ," &#%)#)' %' ' +/ 4:+ / /:+82:+8*!KK ' /6, :/65' !K ' /. ' !K " ' " ' B1 #! B)$' ++/' /6*" - ' ' &2 ' /6*' 2 53 ' *+ ' %B( )' 1B)!' &# 1 C #' #$ B #& ' 58+' +62' &1! (' ,*4' &!) B !' > (#' 264' &!)#B&!' I I)9' %' ./*" I I B %' .8+' &!)1B(' !B)' 5.5' !K &B3 1! ()#' +./ #&) ;)1' 1&7)1' *66' !KK ' *64' *68' *.* #&)!B)1' 1&7)1' *.5' I)#' ,*4' I1?9#' ,*6' I1?9# -#&C(B!' ,52' 3 ,.&)' $&)B' B' .*' 3)!$ 9' N' 56/' *+,' 3&#& #!' 3&#& # 1$)1' .+' 2/:.6, ' . ,' ,/4' !KK ' 2.5' *5.' !K ' +**' +8/' /6+' /68' !K ' / ." 3&!!& # 19' 0 1N %' ,/+" &# 1 #)' !'&#K &!&B 1!' 2.8' !K " &#' #C #$' 4.2' 4.5" #$' 1);1)!)#B B&7)' &#!B&B B& #!' *+." 39!B& &! 3' %' ++8' +8+' !KK ' /65" 3 ; 1)$' 0&B(' B(B' % B( )' 1 # &! #!' +82' +8+' !KK ' (C' .8+ #' 1&7)1' ,+' *.5' !K " I BB)' # B( )' H.2/6G' *,+ # $' #)' N&#C' % B #$' 552' 5*,' !K ' # $' M& & 3' H #)G' ' M& & 3

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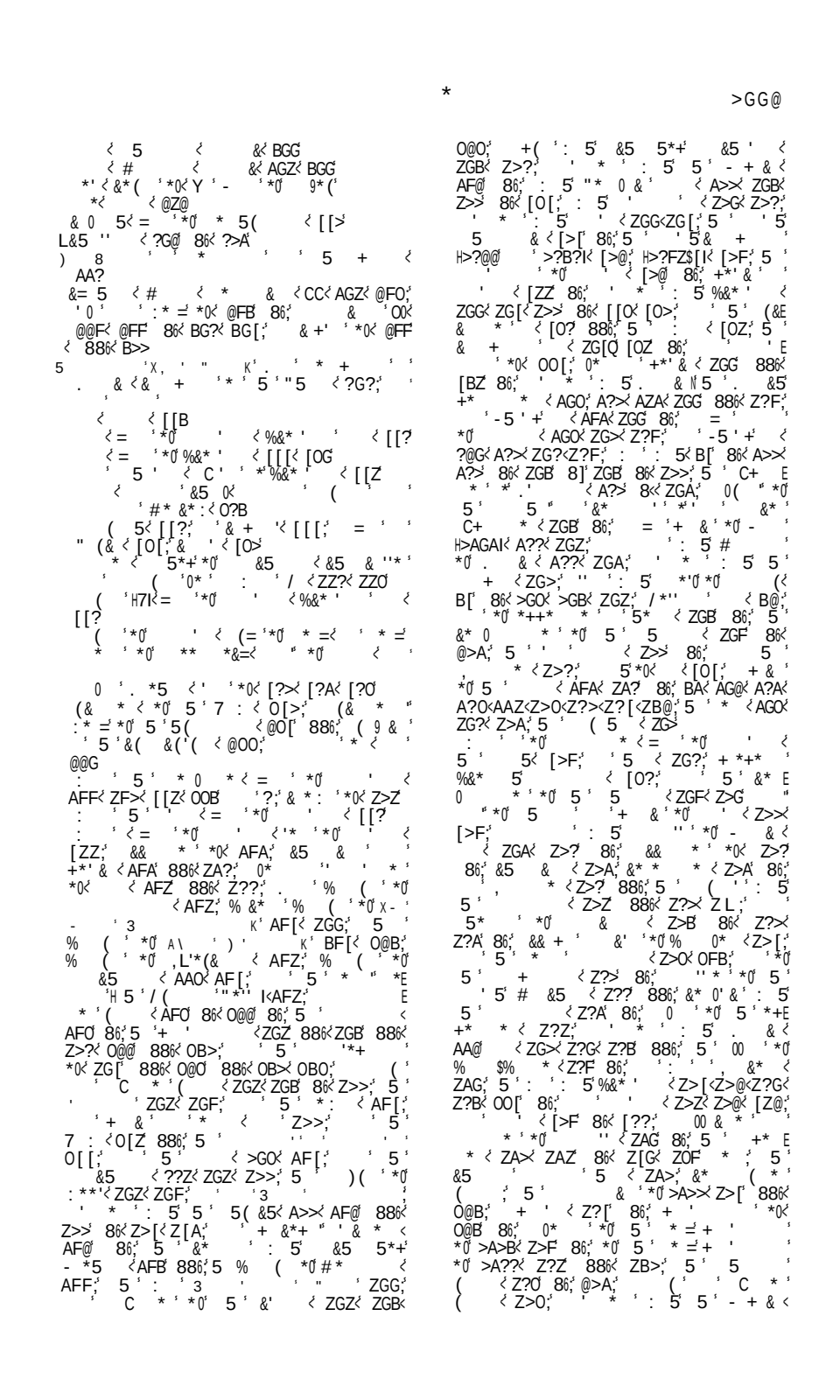
>GG@



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7*5 XX ' & * *0 $+*+
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&* (* < >Z>; *' " ('" *0
5 ' ; *'' C < B?< BB<
>Z? 8; >B[< ?>>; &5 & *0 >A@;
J *Z 5 + W ?>@; AO< ZG 88<
[F 8< ?G[< A>G< OZ@< @A?; ! ' <
= * *0 *'' & * < , <
' ; + * < [>< [Z< @B< FG< >Z>< >ZZ
8< >Z@< >[><>0?< >BZ 8< >BO< ?>O< ?O><
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/ < < / < : < # C ' <
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ZBA 8< OZB< O[A 8< @GF 88; * 5
9(& " *+ * H>AB@I< ZOF< Z@>< Z@B;
* " * < AFZ; +*: *0 5 E
< C< ZBZ; S
*(& '< ZAO< ZAB 8< ZZB< Z[?< Z[B< Z@Z<
ZB> 8< O@? 88< @>> 8; - < C
8< ?A@< ?AF< ?@@< ?BG; '*+ <
&* +* * < 0(& * *0< ZG[88<
Z?[< ZAF<ZZA< ZZO<ZZB<Z[><Z@Z<ZB> 88;
5 + xx $ 0 ' + * <
OOF 88< O@F; 5 * *0 + E
* <O@O 88; 5 *(+ + <
OBG 8; * * '+ *& (<OFA
8; ^ & < ZZG 8< Z[A 8< Z[F<
ZOB 8< ZB? 8< O@A 88; E
* < Z[A 88< Z[F< ZOB< Z@Z< Z@O< ZBA;
' ' * < Z[F< ZB? 8< O@B< OB>;
&' * < Z@>; * < Z@'<
ZB?< OFA; * + < ZZ>< Z@>< ZB?<
O@Z; + &5 < Z[[< ZOF< Z@>< ZBA;
&* * < C< ZB?< O@@< OBG 8< OFA< @GA;
%+ = < Z[[< ZB?< OFA; *'' < Z@F< O@B<
@GG< @GA; + *0 : < A?O
8< AFZ< AFB< ZGZ< ZGB 88; 5 + ' E
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Z>[88< Z?A 88< ZA>; *0 : / <
&5 AZ[< A@A< 5 +< C '$ ZFG
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* '*0 * < C< OOB 88< O@@<
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OB> * ?<OBA 88<OF> 88< OFF< @GF 88;
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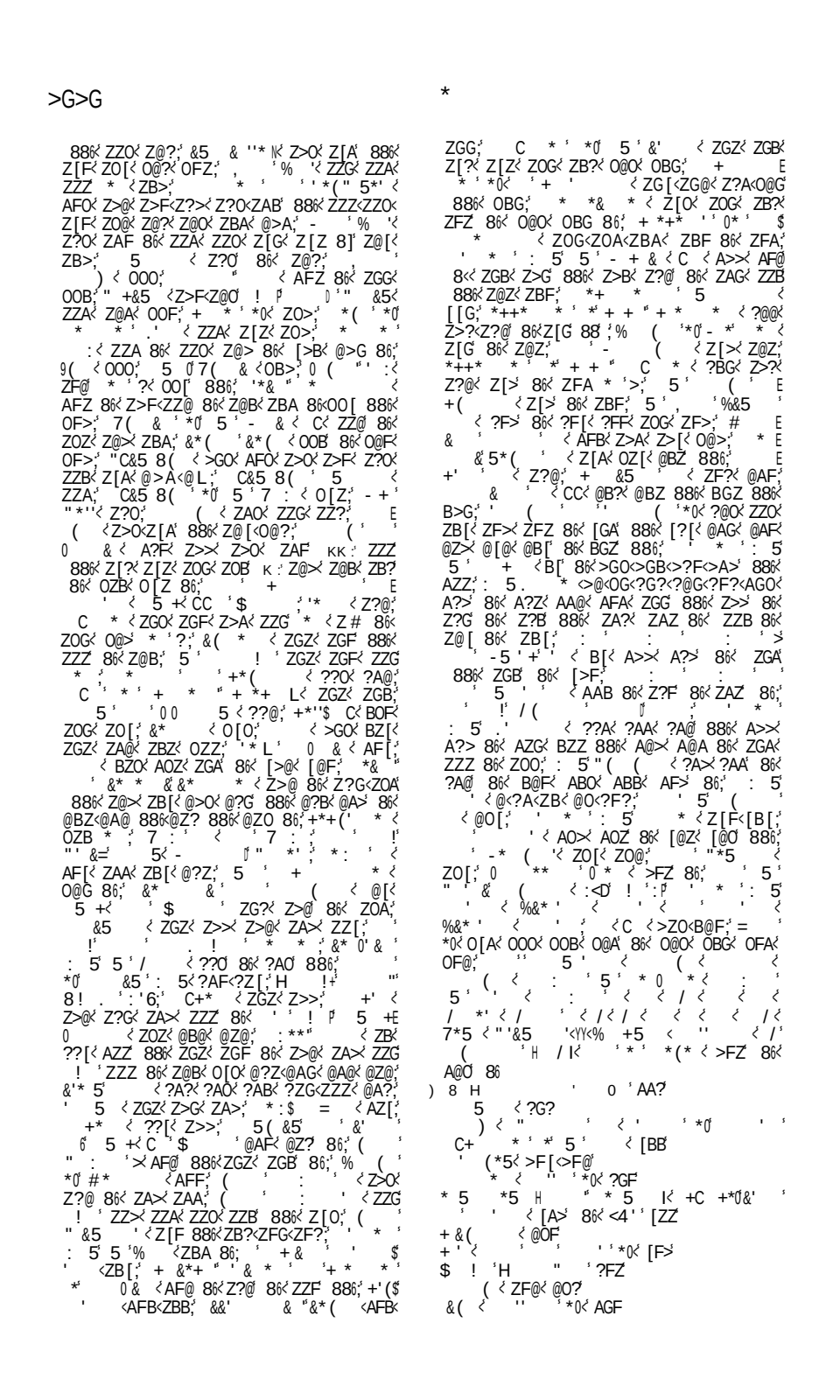

>G>?

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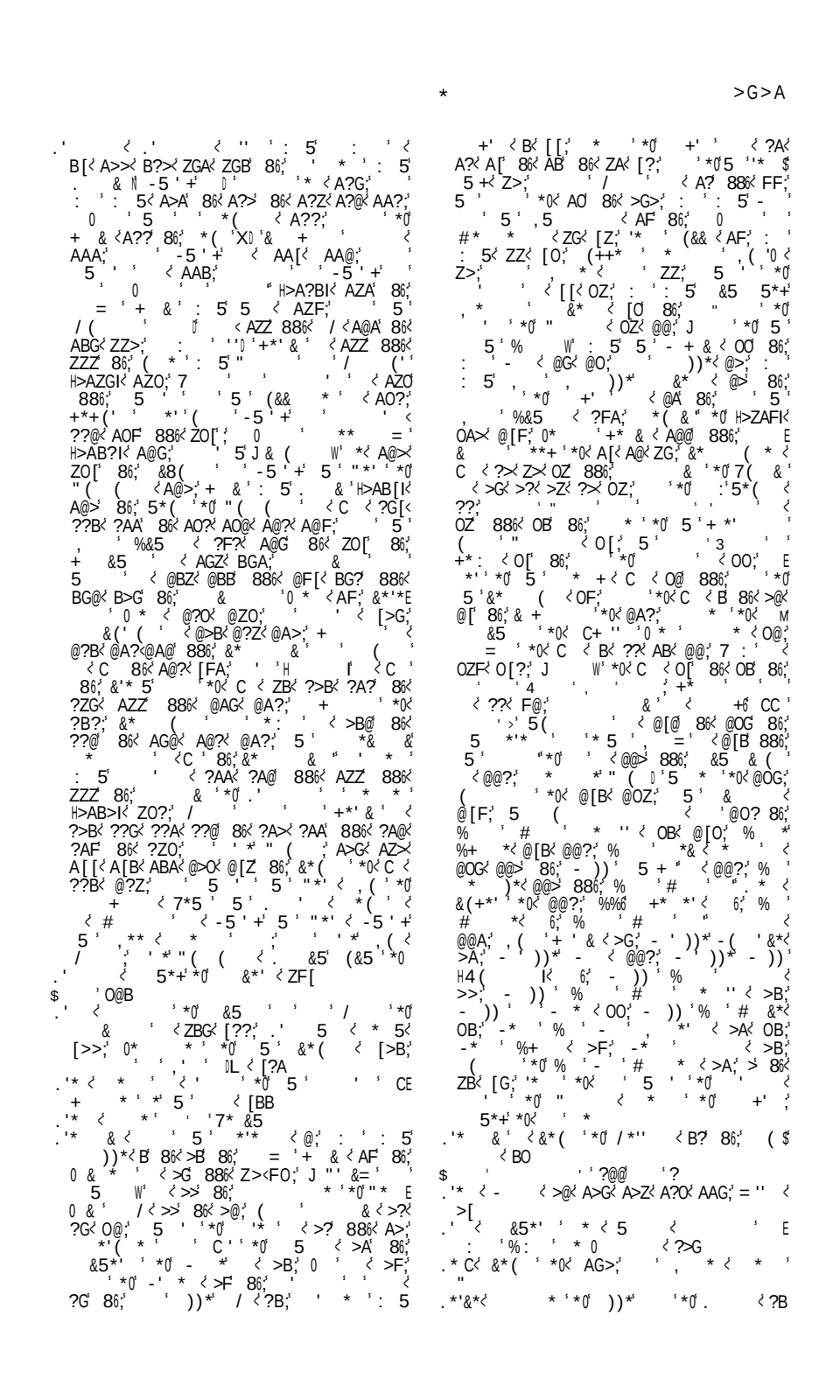

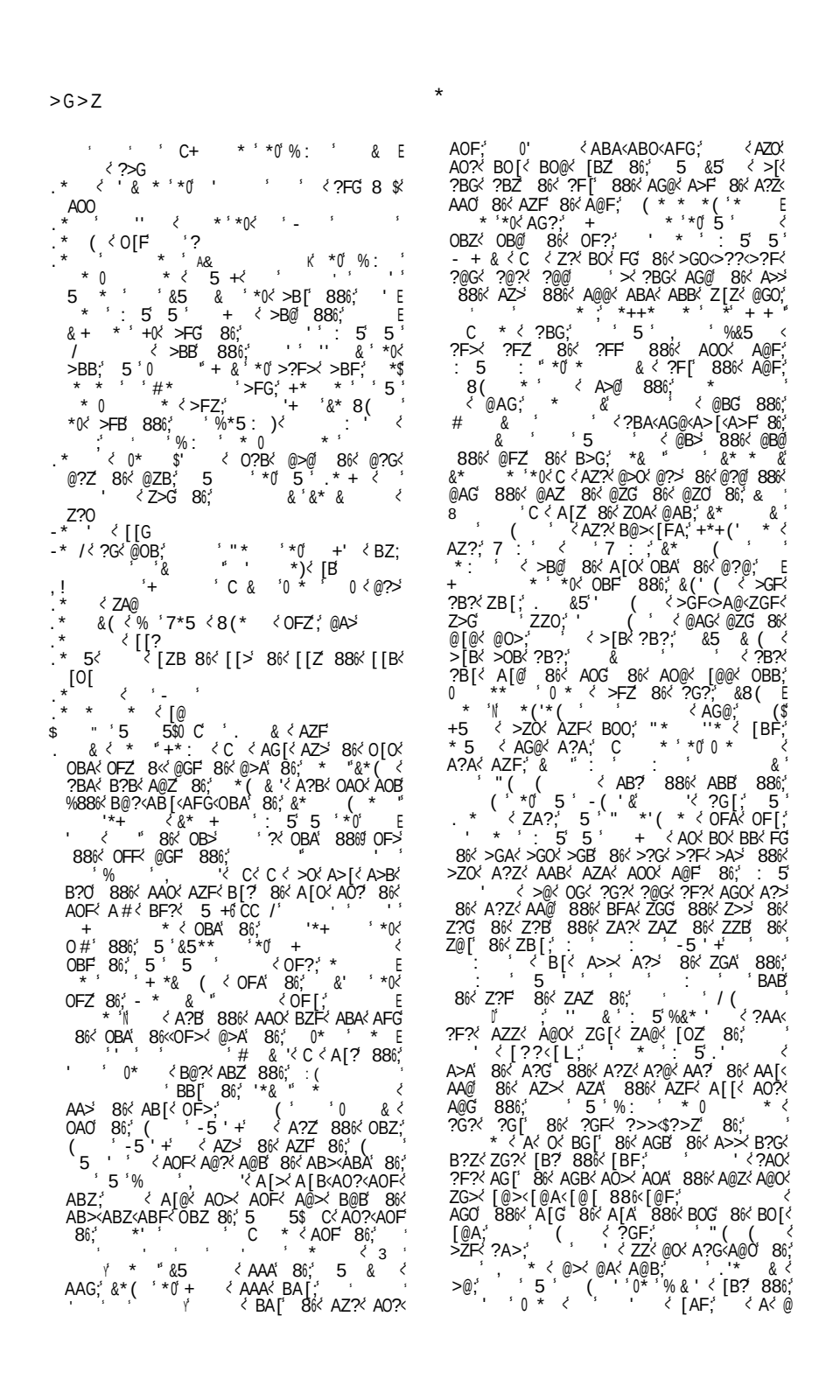

8 >0 @A 8 @O B? 8 FZ >>? >>O
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FF<?G [< AO?< A@F; (*'0 *0 / (<
B?<>GA; &8 (. & >GA<>GF< A?A;
- 5 ' + 5 "' A[B; % : (&E
& <?GO 88; &8 (/) '
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8; 5 : * = 0'(& <@F? 88< @FO;
. (* 0< @BB< @F?; 5 ; @F[
. & & < . & & < &5 <
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8; & *0 @@F< @F? 88< BG[8<
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@FA< @F@ 88; %+ (* + < O> @<
>?G< >?? ?BA 8< @@F< @F> 8< BG>; *
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@F[8<BG[;0 *0 - & <
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*0<@F[8<@FF<BG> 8<BGF; * *
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>?B; &* 0' & : 5 7*5 XX <[[< >??<
?BA 8; . & <A>F 8; ' <[>[;
5 <?B@; * : * =*0<?B@ 8<
@F[';[A<Z[?< @FG< BGA 8; $
& &
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>[?< BG?
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>F?
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>[F; 5 * *=< ?>O
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BG< BO< BB<F[<F@< [BA< @A>; + * <
B> 8; 5 * : ' ' <>GZ 8<
>Z>; 5 ' * " ('* " *5 <>[[<
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?[Z; 5 7 : <O[?; (* + E
< ' ' <@GZ 8; + &(*
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+ * < 5 % : * 0 * <?G>
88< ?>>; '' : 5 *(X
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= + & : 5 5 ' <?G@ &(
. &5 * Z0* # C ' <?GB;0*
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<FZ; & <>>A;5 ' & * *
&* * * <>>Z; : : 5 : <
>>Z 88; 0 '# 5' * 0< Z@<>>[8<
>[F< BBB; &* & ' : 5 : E
&* '9* $= <>?>% @Z 7*5 XX / <
ZO< >>B<>??; +*' & <ZG 8< ZO 8;
5 *0< >?[<>F>; Z?< >>F<>ZZ * <>[O<
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+ *0 5 % <>FF
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O 88< [BO 8; *0 ' "* <
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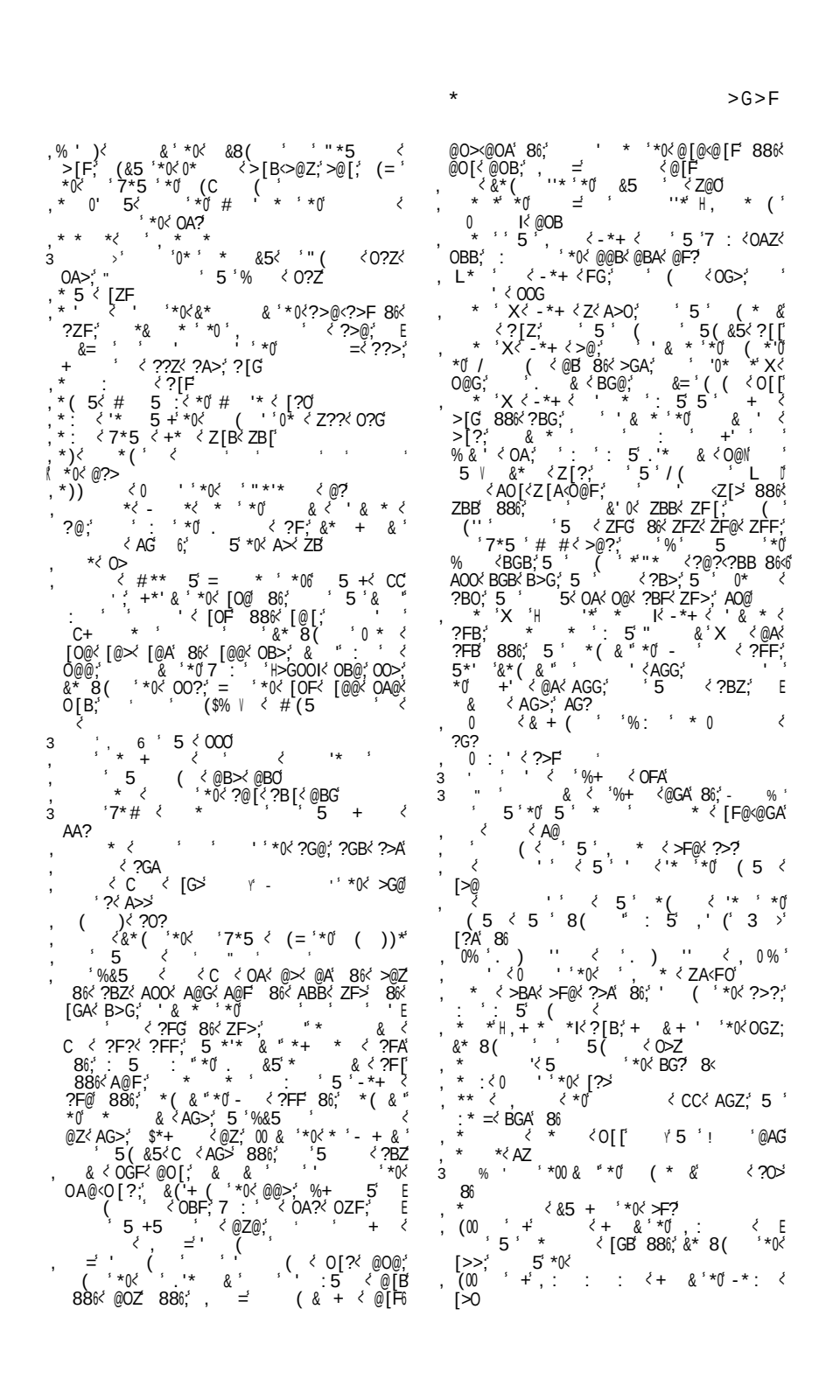

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, (00 ' J '' '-*' W'*0%*(5 '-*: <
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, ('8(< < [O@< [FA
, & *< * *' < * '*0 , * < @>
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: 5' : ' < BO;' (='*0< A@@< ABG
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< >FA< ?GB
, (' <5 '*0 4(' # ' <@BO

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, (50 5< 5'= '*0 (' ' ' E
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, < ?[B
, ('*0 + <&*('*0 .' <BA<
AG@;' '' '*0 : ' ' -5'+' <
A>>< A?>' 8< ZGA;' 5'*0< A??;'5 ' * <

, ('*0' .' < FF

, () ' '" (*< * * '*0 0 <[@? 8;'
5 ' * < [@?
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, : <+ & + ' '*0< 5 +' * ' ' Y
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: 5' / ' < [>>' 8;' & & '*0<
(' ' : ' ' +' * : 5< [A 8;' E
C * ' ' 5 ' * : ' < [>[' 8< [>B;'
&* 8('*0< (' : ' ' +' , (00 <
[>O;' ' 5 ' : ' ' < [>@
8;' '*0< [GB<[>B;' + & '*0< ' '
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/ (< 0 ' '*0< +* ' ' ' &E
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8;' 5 < >?B<>O>< >O[;' *'< >Z@
8< >O[;' &5 ' * <?GB 8;' +* E
* ' '+*' & ' % :) <>B[' 88<
>F[' 8;' & '*0 % : ' * 0 '
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< >FG;' * ' " 5 ' *' 5 < >FF;'
'* ' (< >FF 8;' ' * ' : 5' : '
< >>A< >>[' 8<>>F 88<>?[8< >?B 8<
>A?< >F>;' 5 ' / (' <
>?F< >A?;' 5 ' ' < >ZO 8;' '
" *5 < >[[' 88< >O[' 8;' : 5'
5*('*0 (C (< >ZB<>O[' 8;' '
+ "& * : ' (. &= / < ?G>;'
'' & ' : 5' . & < ?G?;' A>< @F< B< BF<
F>' 88< >GO< >>B< >A[< >[O< ?>>;' '
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H ' < 5 < 7*5 < # C ' '
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[ZG;' @B[
/ D ' ''< [ZB
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' * ' : 5' . & < A?A;' (* ' : 5'
.' ' ' " <AZO;' 5*('*0 " (E
(' <A@F;' &*('*0;' -5 ' ++ '
' / *'' <&*('*0;' ' -5 ' ++ '
/ =* ' <= '*0 * : <?>B;' 5 ' C+L $'
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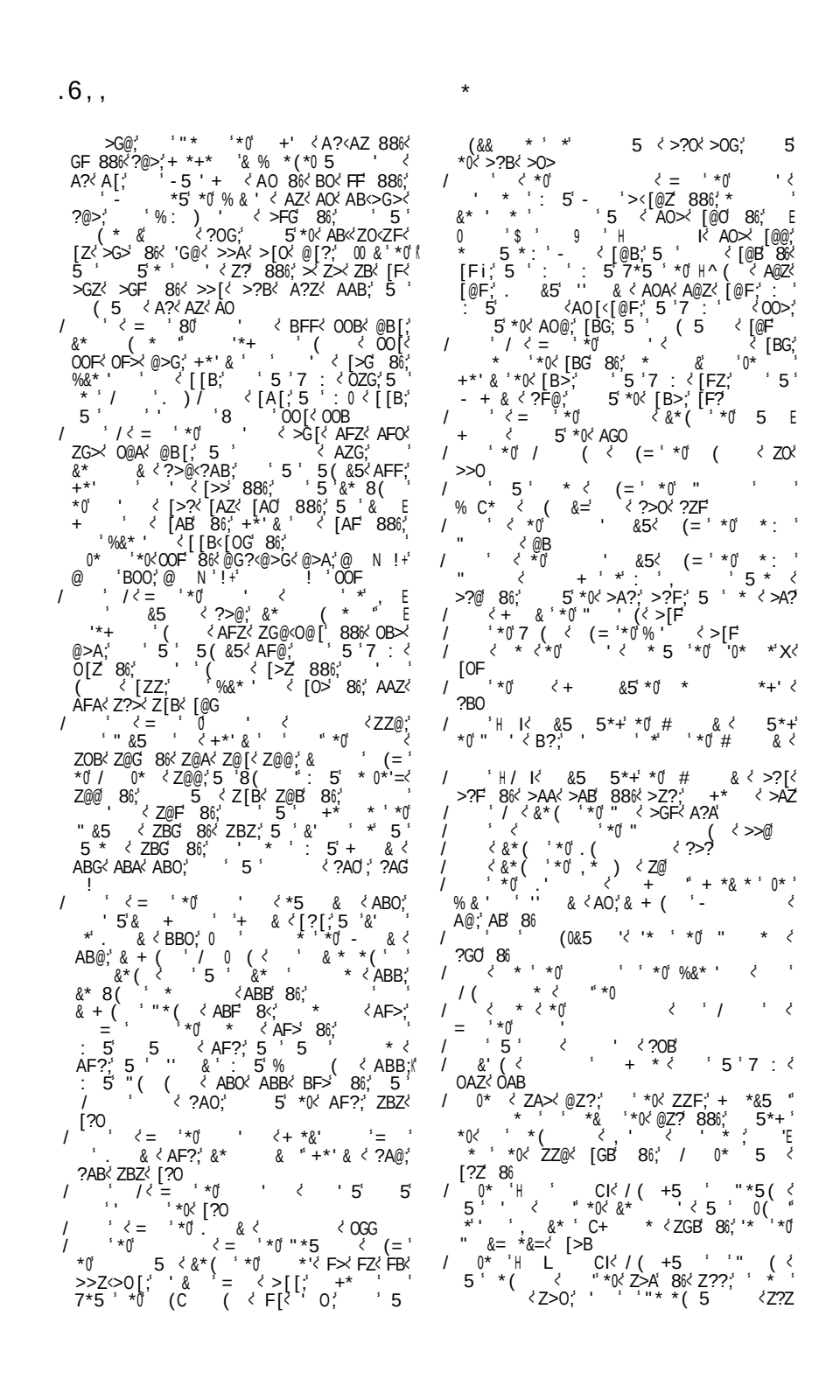
/ ' < ('0* ' &5 ' / S' 5 <
ZO?;' ZOA



/ 0* < '' ' . % < *0<
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/ 0* < &5*' < ZBO; ' 9*'' ' '
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>B@< AGB< [BA; ' 5 ' - + & < @B< FG<
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/ * * (< -*+ < ' 5 ' 7 : < O[O;
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AZA< AZB< A[@< AOA< AFA<ZGG 88< Z?G 86<
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86< AOG< AOZ 86< ZZO; (&& 0(' 5'
& + ' ', &* 'H>AZ[' >AZOI<
AZB; & + ' ' *0 & < I'
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0 - < A[>; ' 5' & ' *
- < A[Z 88< AOZ; & + *0 >A[F
' >AOG< A[O; ' *0 " Z ' '
' < A[@< ZZ?< ZZ[; 5 ' : ' ' < '
AO>< ZB[< [@O 88; : *0 : ' '
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& *0 < AOZ; . &5 &* 8(
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+ * < AO[< AO@< Z[@< Z[F< ZO[' 86<
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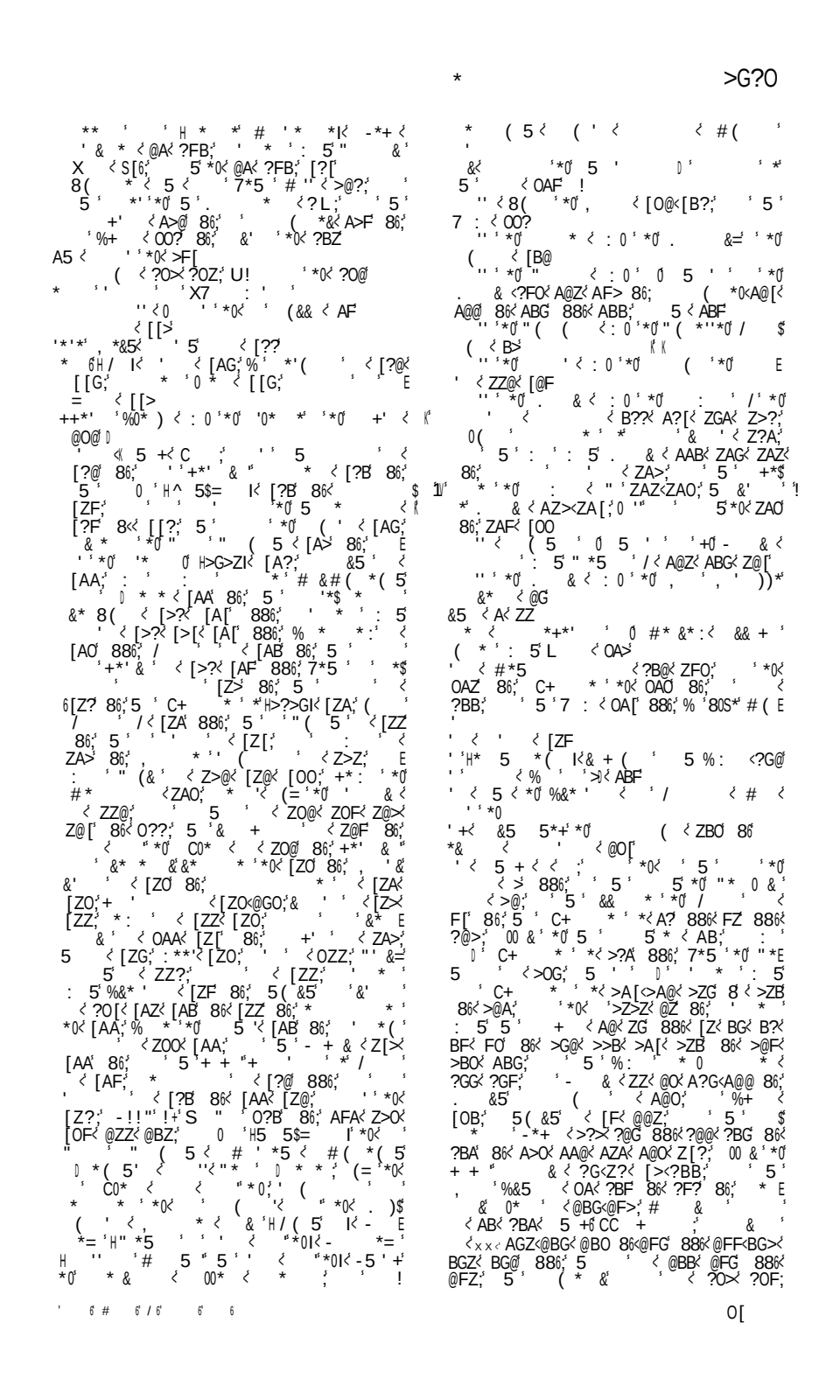
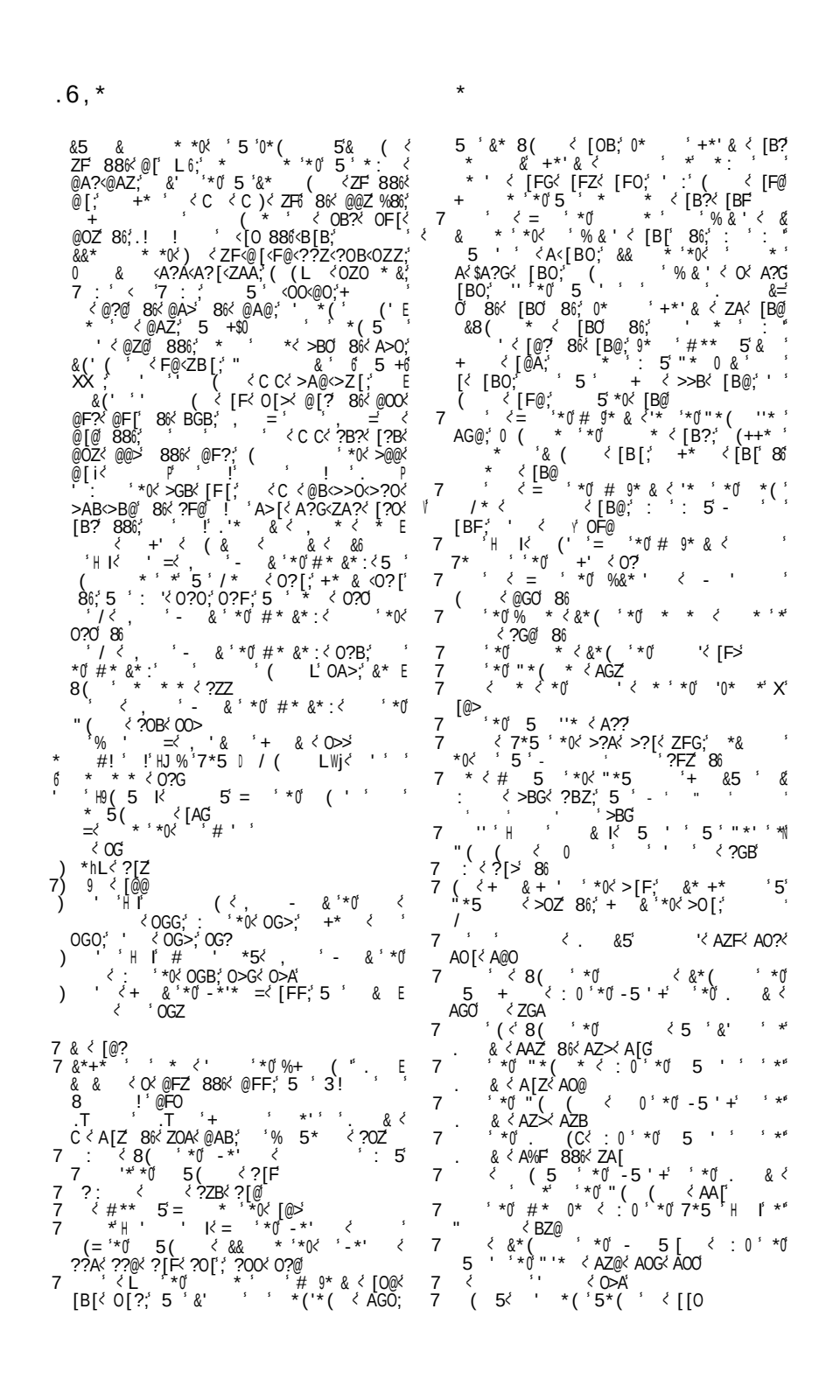
& (' *' .' 'H>ABA I< A@>< ZOO;
. &5 + + * ' *' ' <





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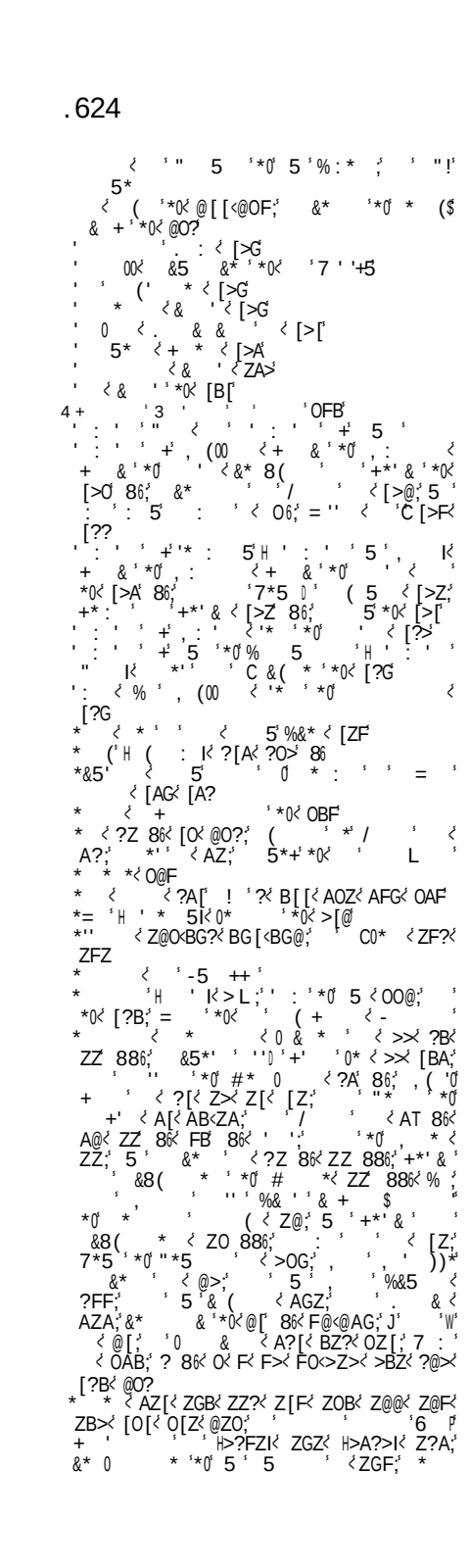
7*5 = '* "*5 &*('*0 (C E
(: 5) 5 *0 "*E
5 A><FZ 8 >GF<>[0<>OG, &*
= F[>[O, &5 & >>O 8 >A[<
>OG, / D ' C+ *
AO 88 4" 8, & 0* + <
>>A< >[O, (++* : >>[88
>[O >[F, 5 & ' >OG, &5
: 5 5 ?O 88 >0>, +
&* & ' : : 5 5 -*+ ?@,
& (*0 / *0 " P
&= * : ' : * '* A?,
0 5 &5 >AA, ' & * '*0 5 '
= '*0 5 "* AZ 8 >0>, 5
5 - + & P +*' & " "*5 >>@
>[O 88, 5 * ' >OO 88, 5
&8(* >>@ >A[>[O 8, 5 C+ E
* * 5(>OG ?[F, <
>OG AZA, 5 5 5 (&& * <
>?O 88 >AA >OG 8, '' & : 5
. & '?B 8 >A[>OG 8 AAB AZA,
, Z& >A[>O 8 AZB, 5
: ''>A, 5 (5 >>@, >OZ 8
>OB 8
7*5 = *0 [@F, *0 [FG, 0* +*' &
[BG, 5 , %&5 ?F?, [FA, 5
* OBG
7*5 = *0 - ('* 5
*0 ' & = [BG, : : 5
' [B>
7*5 " '' *' = *0 %&* ' &' *
5 5 * [[B ! ?< [OA 8, &* =
= ZGG [OZ, +* : <
ZG[[OZ 8
7*5 (= '*0 " 0* ' " 0*
7*5 (= '*0 " ?F[AOZ A@A<AB> 88
AB[AB@, (*& AOB A@G A@?
7*5 (= '*0 " OA FZ
7*5 (= '*0 " ?G
7*5 (= '*0 " 5 *0 AZ@
7*5 + *0 # * ((= '*0 " <
&* : 5 5 ' '* "'* AZ@
7*5 H I (= '*0 " <* '*0 7*5
H P & (5 (&5 AOG, 5*' '
5 ' ' AOO 8, '' '*0 :
/ AOA 88, A@? 88 A@B, 5 &5 ' <
ABG
7*5 H I (= '*0 " <
A@Z, BB?< ABB< AF?
7*5 5 . ' (= '*0 " ((&*('
*0 . < A@Z A@@, 5 (E
(&& 0(" @(A@O A% , ' : 5
*('*0 ' AB> 8, 0 (: 5 5
& AB? 88, + * : '
- ABZ 88 BBB 8, 5 / (
0 ABO 8 AFG 8, '' : 5
/ ABO ABB AF>, * : 5
5 (+5 AF>, (<
7*5 * *0 ' * *0 '0* * X<
[@>, + * : 5 5 * [@? 8
7*5 * *0 ' '' * * '*0
'0* * X [@Z, [@@
7*5 (= '*0))*(&*('*0 , <
++ ' /) '* AZ 88 >GG,
OA !
7*5 '*0 (C ((= '*0 , * ')< % <
>[A >@Z 88
7*5 '*0 , ((= '*0 & E
&
7*5 '*0 / 5 ((= '*0 % : H7*5
. & I BA FZ, 5 ('*0
' F> 8 >FG
7*5 &*('* & "*((<
AOA
7*5 6 *('*0 &< A@O
7*5 5 %&* "+0 5 5
7*5 &*('*0 / *'' B@
7*5 H I &* *0 / (/ *''
BF 8
7*5 8('*0 # * 0 ?Z
7*5 / '*0 (C (*0
< : 5 # # ('$
&5< >?O<>AA<>OG, '*('*0 *'<
>AA<>O>, 5 5 (&& * '"*5 <
>OA<>O[, 5 *0 >@Z
7*5 *0 " *0 " &5 * <
" &5 *
7*5 "*0 %* %* '
7*5 %* % ' *0 (C (+ &5 *0
8(>@Z
7*5 $ *('*0 % * 5*+ *0 , <
?G@ 8 L
7*5 *0 0 H * (= * *0* *I<
5*+ *0 '* *(*< >@A
7*5 *0 / & 5*+ *0 - (<
5 >[B, &5 & (>[B, >@G
7*5 *0 7 % 9 &5 5*+ *0 - (5
+(: 5 = & ' >@@ 88,
"* >@F
7*5 GO=*< &5 5*+ *0 - (>@?
7*5 *(* (& '
7*5 *0 ,)< OA@
7*5 *0 . & & @FZ
7*5 *0 * * 5 ! ! H
AF[ZG@

' < [?F; ' *0 [A['
'* < [B>
U $.#' @ZA
' * ' % ' : '
' < = + *0 5 - '% '<0* ' : '
< ZAF 88 ZZ?< ZZF
': < * <& '< &5 5*+ *0
(< BFB
' * (< [?F
L ' ' * & + * ' < Z>A<
Z>[
' < " ' <?>B<??[' ! '>< ?AF;
BG[
* $ +* $ / (''< ??[' ! '>
* $* $ 5 < Z?A
'* < ZA@; ' * '5*(' < [[O
< [OG
+&5 =<O>Z;&* 8(' '5 '# (' <?BB;
' *' ' / *
'* $" '*) = < * <0?A
=&(5 < [ZF
= '' <@B[
' (< " & ' * ' < >@B
') < <O>>
* *(5<5 ' < BG['
5 * < J" ! .! *0< Z0B ! '
5 '*0 5 ' * <>FF
5 '/ * + '' '*0 % '7*5 '*0 7 (E
' <C <@< >??<?@[<?B[<A>O; ' ' '
' & (<?BO; '+* * '*0
5 +' <?@[< A>F< Z?@; + * '*0< '
'* <OF@; + * '*0< ' * * <ZO?
5 ' +' <@< ?A< ?[G; ' = <
A?F; ' ' (++ * '*0< C <?OG<
?@G<?@[8< A>><A>O 88<A?[8<Z?@< OB@
+ * < *5 * < ' '*0
(* & < ?[F< ?OZ< ?O@
*'' < * < ' 5' .& <
A[[< AOZ
* ' < (< & * '*0 5 ' * * <
O?@ !
*= 5 (<& ' <?[>
*= * <?ZF
*' <?[F
*')< * '*0< ?[A
' <O?B
U! ' '*00 ' ' '*0
5 ' (* & <?[?< ?O?< ?OZ; U! 0
' (<?[B< ?O?< ?OZ<
?OO 86
* *0*(<?[[; & + *0 (E
* & <?OO; U! '*0< ?O?< ?OO;
?[@ 8< ?OZ
* 0 ' < * '*0< F?; '*0< '
'*0 / (
*)' H 5*9 & I< ' '*0< ?OO
U! ! ' / ' ' < ?>@< ??G; '
/
+ <?[Z 86
U! " '' *(< ' - (' '-* E
<@AO
* * <O>>
* (<?OZ
* *< ' ' <??@<?Z>; ?[B 86
*) '=< = ' 5 ' <O>Z

' =< & ' <>@F
0 &= < 5*+ *0 <?OO
() (<& ' ' <?[Z
* < 5*+ *0 <?OO
L* [0 ?< # ' '
< -*' 5 '<?[A
(9 : <?[A< ?OG; *& '*0<?[A; 5*+
*0<
(' =* *< ' '*0< O?@< O?F
(' < (' ' H 5 ' *I< ' *
5 ' (* & <?[A 6< ?OG; & '
*0 5 ' <?[[; ' <?[F; E
* '*0< ?O?; &*'* ' <?OA 8<
!LOO C ' '-*' + <?OO 8; ?[O 88<
OA 88; U " 1 + H (' ' : I<
OA<?O@; *& '*0< ?O>; 5*+ *0< ?[O<
\O?; 5 < 5*+ *0 - (
(' <?O> 86
(*' * '. '= <&5 5*+ *0 % <
>[>
0) ' <&5 &* '*0< ?@B
(&5 ' / 00< ?ZB
(' < (<?ZB< ?[G< ?[>; 86< ?[B< ?OZ
! ?O[; &* 8(' 5 ' (* & E
<?[O< ?O><?OZ; *& '*0< ?[O< ?O?;
(&5 '*0< ?OB; . 5 (<?ZB; ('
J = <W' ?OZ
U ' ' !
(=< + * & '*0< OGZ

' . <ABG
' * < ' '*0< ZF< O>
' # &5 < &*('*0< ' 5 ' ' <= '
*0 - &
' *' <AO[; '*0< ZAG
' *&5 < * ' '' < ' * '
' *&5 $ < ' '*0< AZF
' **5 '' <??F; = ' 5 ' . &5< AOZ;
' 5 0 ' !Q ' Z[Z< [@F; '*0<
BOZ
'%)< ?G@
' < + * ' ' & < [?B
' *(<0 ' '*0< >FB
' <?A[' ! '?
' ' '*' < ' '*0< OAB< OOG
(< ?[O< ?[B
*(< ' *(< + ' & < ?OA<
@?G 8< @?@< @A[' 8; : $' *(< ZOA
8< @?@<@AA 8<@AO; + ' *' (' <
ZOA 8< Z@>< [FA< @A?< @AZ< @AO 8< @ZB;
* ' '*0< @AO< @ZO 88; + ' *' E
& ' * '*0< Z@><@?@<@AO; 9(& '
*0 ' *(< ZOZ; ' ! &(' (<
, ' < - ' 0
&5 <?G>
& (< (& + '*0< @A; ('*0<
@OO
& < 0 ' '*0< [ZA
& < / < *0 &*' ' '% ' (<
&*'
& < / (5 < 5 ' ' <'* ' *0 # 5<
[AB; * * ' ' <[AF< [Z>
& < / (5 < 5 ' *(< *0 ' <



>GZ?

*

>GZZ

>GZO

*

*

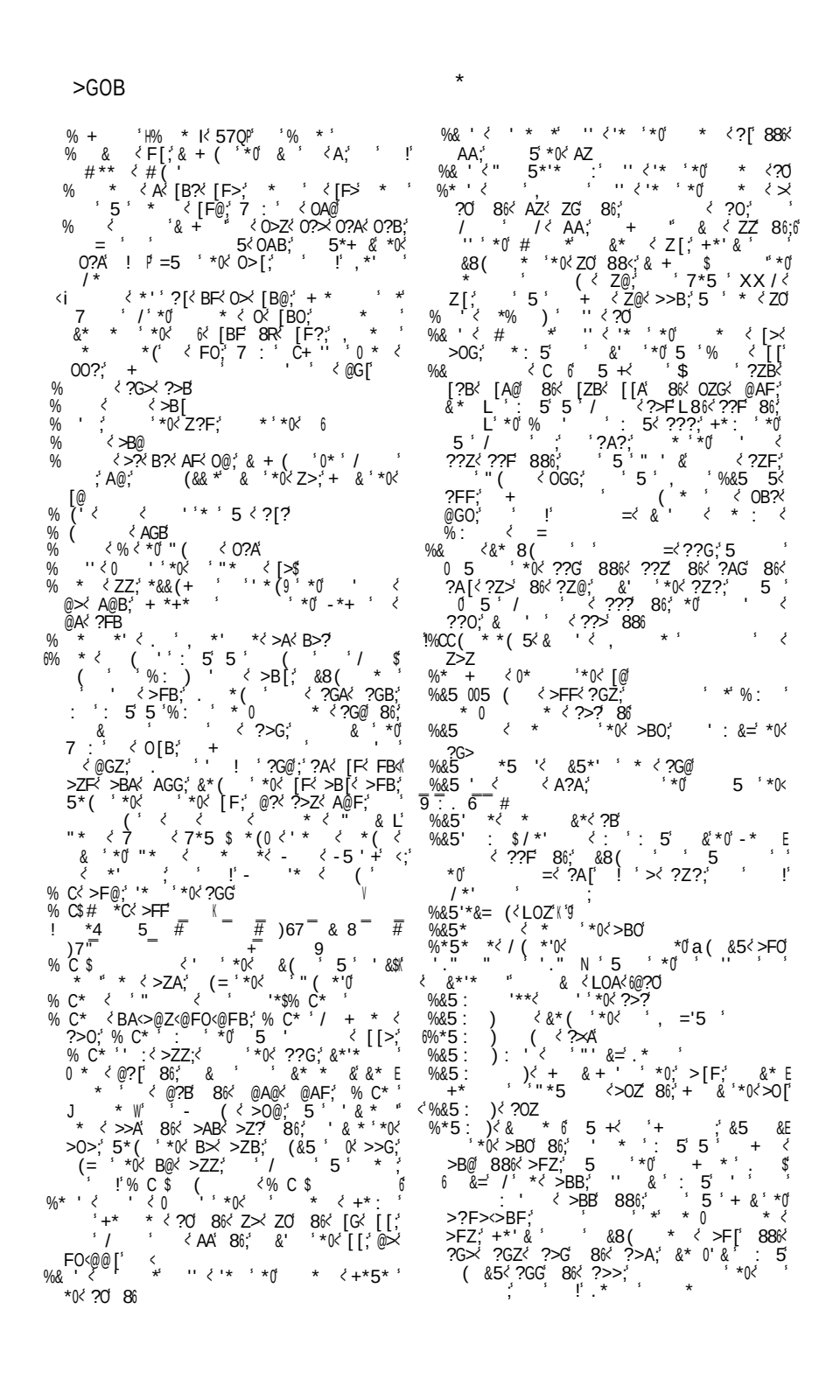
>GZB

*

.6*6

@>>; '"*5 <>O@<>OF; %+ <[OF<
[@> 86< [F[; ' < O@[< @>G 86;
5 '(<@OZ7 ' *& '!+
* &5 < >GB< ZL< Z[@< ZBZ< [F[; &* E
': 5'0 ("' :<OL' 88&; 00 &'
* ' 5 ' + < @A@; &*(< [OZ; 5 '
! G " ! ! 'OAZ
"* ' + < " 'H & I< &* 8('
' ' '*0 '+ '+ & < >BA<
86< >BO;*&&(+ * '*0 %&*' <[ZB 86;
7 :'(<OA? 0'8&< OAF< OZA< OZ0 86<
O[F;' :'(< OO[; ZF< @@< >Z[< [?O<
OA?< OOZ 86< O@[; "* ' + * <[<
OAA<OZ@; & * ('- < * <
7(' < *< % (< (< 9 <
+
"* *<))' /' <?A
"* <= *0 5< 5*' *0 ' & * <
*"' '*0 ' & * ' ' + <
; ' ! *'0*0 (< ' '
*0 / (< * ' < / <-5'+'
*0 %: <"&5 '*0 * : ''<"(*'0*0
/ (< (+ < & ' *'0 (C E
(< '' '*0 /*'' ; $= < '
'0* *'X<. &=*0 / (L
* < ' *<A<?@?; 5'7(' '
*0>AGG<@<@[>; 5*0"* 0&' /'
<>O<F><A>[86;"* ' *0 +'
+'*& +(<AZ<FF 86;5'+*:'
<Z? 86;/ /' <AZ 88&<>GG 86;
5'&* * *<A[<>GG; 0&* ' <?@ 5
[><FO<?@<%86; : ' <?A 88&;5'
&* * *<>?Z; '&*'*0 &5*' ' '
$+*+' <[Z<>?Z; *' ' ")*
(' *' <[? 88&;&** E
*'*0 5 ' ' <>Z>;#'0* <>@?;
7*5'*0 7 9' <>@F; ' <
[><>ZB 8&<?@< 8&<?BG 8&<BG@; '5'
('*0 , *'X<?@?<?BB 8&<AOO<
BGB<B>G; 00&'*0+ + * &<[><?BB;
'5' ' %&5 <OA<@A<?FF;'
'&*'*0 ' <?BF 88&; *' <
?FA;"* 0&'X' <@A; ' '*0
+' <@A' 8&<?FF;' *' >G[FI<[G>
! * ' H>AG?I< 6 . &5
5(&5<A>A 8&; + ' '
<@G[;+' <AGZ; * & <
A?G;7': <OA?<OAZ<OZF;5(
'5(<@[Z 8&<@[F 88&<@O@
8&; &5*' D'&*(<@O@ 8&; E
8(' *+* +5'*0<@O><@OB<@@>
8&; (' <@O@; <@@Z; <
>O<A[<>GG<A>[<@@>; *(&' <
*(&' & <>O<>GG<?BF<@O@<BGB;
&5 '*0<AGA; <@OA 8&; %'
- D<@<A[<>GG<>?Z<@O@;%'- ('D<
@; " '*0% *'*#*''<AZ; * *<A[;
< + *'< 6<>GG<@[Z<@O@;
- 5*<@@?;-* ' -*+*'*<>GG;
+* . < 6;-)) * < 6;
<>O; *< '" &'X<X/<
' 'H7*5 I<")*;+ 0&< &*;
&'*0 5'+*+'<>?Z;><Z<O 8&<><
>Z<AA<Z?<O@<@><@O<@B<B?<BZ 88&<FG<

FA' 88&<>GB<>?B<>ZG<>@><>@A<>@[' 8&<
?[G<?@G<?F?<?FB<A><A>A<A>O<BOO<A@O
8&<AFB<ZBF<ZF><ZF[<<[G[<[>A<[AA<@F?<
@FF<BGB; ' !'"* +
"* * <&*('*0% '7 '*0% *'
* ('<%< 0* ':*=*0<@BG
"* &*<OB
"** =< '*0<A@G
"* &5 &5<?>>
"* 'D * *<= 'H *0 * (5<5 5$= '
0 ' <[AA<[Z>; 5'& 8(<[AZ;
!: ': 5 *'*0 <[AZ 88&;
' 5' * ' <[AO 8&<[ZG;
' ('<[A@; 0 ' : 5
/ '/<[AB<[ZG; +* <[Z?; 5'0
(5<[Z>; 5'*'<[ZA
"* <AGF
"*&* *<& '<[Z[
"* = 'H 5'"'&= 'I<[[G
"* <0 '<?[?<?O[
"* < '*0 5<00&'*' <?A@ 86;
'(+*' '<[?O;ZA@
"* <[[><[[[<[F; *& '*0<[[@
"* '<& <?[Z;?[B
"* '' *<" *<5'* '*0 * *
"(<@OG
"* '<0* '*00@?F
* <0 ''*0<'* &<>A
* ' < ' - &'*0 <+ &'*0
% *' = ' * *< '*0<OGB;
O>G;5' +5 :<OGB;5' & <
O>G
* ' < *'*0 *' ' <OGG<OG['
"* **=< '5'/ <?>F !'??? !'
>; '5' ' '" 5 <??B; *E
& & * ' <??B; '5'/*' K
: <?BG; ' '*0 * : <?Z?; '
! ' *:
"* *<+ &+' '*0<OGZ<OG@<O>> 8&<
O?Z; '*0<O>>;+ & '*0<O?F; #"* <
' '#* * =5
"* <[@>
" < *0 5T?@Z
(<>[A<>F><>F@; &+(' (E
& <>F[
"*5 5 5<ZO?
* <O[@
"* : '<?GZ<?>? 86
"*(&<>@Z;(' '<>[B
"*(&<A[><A[A<A[O<[??; '*' ' ' '
<AO?; (&* 'EH 'F0
AOF 8&; *' *'*0 5&* (<A@G 8&;
'&+('*0< / <ABF 8&;
* <AFG;7': <OZG 8&;+*+(' *<
ABF; ' <AFG;& 5 '< P &5E
5*+*0<?FO
"*((< * * ' <A[@; *'<
AOA; &* ' '. &<AOZ; BO@<OBF
! >; &*('*0< '7*5<&*('*0 $
& b
"*(''*<. &5&(' ' <AGF<
[B[; * ' * ' <[BO E
C ' - ' <OBF;& '*. &<
'* '*0< '7 /< /*0# 9*&'
"*(<-5'+*0< '-5'+*0"*(



>GOG

>GO?

' < F@Z 88&; < F@@; 5 '
: 0 ' '5 ' <
+' < '*0 5 < ' 5 ' +' '
' 7(& * < ' (' *0 5 < ' 5 '
* < ?>?
\'\' '*0 <W' .'* & < OO
* < O>
& < ('*0< @FF
< % < @B@
< * ' %&* ' < FFG
* < @O>
< ' . & & '
(< (& + '*0< @OA
('< FF>
< '' <+ + " ' <Z>?
(< * ' ' 5 ' ' H>ZGGI<
FB>
(* & ' H (* & 5 ' *0 % '
I< 5 +< C; ' '5 * <?FB;' '
< ' - (<?[A 8&;& 8(' - (<
?FZ 88&; ' * ' : 5 * '
< ?FZ; +* : ' ' * * ' *0<
?O> 8&; +*' & ' 5 ' &* 8(' ' <
?F@< ?OA< @AZ< @AO;*& & '*0< 5 '
/ < ??>< ??F 8& ??F 88& ?AA< ?Z><
?OB;' ' <??F 8& ?AO 8&; ' E
* ' : 5 5 ' + <>??< ?FZ< ?L' 8&;
5 ' - + & <?FZ< 1 8&; ' (<
?FZ 8& O>@ 8&; 0 ' * ' = ' - +(<
?FF< O>B; : ' 5 % *+ '=*0 - * E
<?FF; &8(' ' -* <
?OG; : ' 5 5(<?FO 88& ?OZ
88&; ' -*' <??F< ?AF 8& ?OG ?OF
8&; & " : ' <?Z><?OF; &' ' '
0 L ' *0< ?Z>< ?ZA< ?OO; * ' '
'+ & '*0 5* <?OO;' '5 * <?O@
8&; &5 '*0< ?OB 8&; &5 * &' '
*0< ?FB 8&; &5 * &' '*0< ?OB; ! '!+'
?OF; C <>GF>OG<?>O<@?[<BG?;' '
'*0< ??F<?OG<?OO 8& @AO;5 '&* E
& " '+*' & "+*' & <??A 8& ??O<
??F 88& ?AA<?AO 8&;0(& * '*0< ?O> 8&;
' ' *0 /*5)*'' < / ' *0
% ') < + * < # C ' '*0 (' '
' * <-('
''< 5((' '*0 -*'* =< ?FO
5 < < AO@< AFO< ZO>
5 * * '*0 . (< * & ' &<
@FO< @FB 8&
5 * * ' - ' *'* (< 8('*0 #* $
0 <?Z< A@
5 * * &< * ' ' * <?ZF
5 * * (' < ' + * < ' 5 '
7 : < OAZ< OZO;5 ' ! G " ! ! '
OAZ
5 * * < *+*' '*0 #* &* :<O?O 8&
" ! ' J . ' BG?
5Z <7 '*0< ?BA
5 '* & <& + (' ' 5 ' (= < @AF
5 0 &5 < : ' '' ' & + ' <ZZG
5 ' ' <>OF
5* '*0 " * 5 * < " *0 * 0*'=< '
* 0*'=
5* '*0 ** *&=< (='*0 ,'*(& <
,'*(&

*

5* < - < AGA
5* ' +' 5* <O??
5* * < FA>;' 0 & * ' : ' <OZF;' 5 '
' ' ' < ' = ' *0< ' " '
* ' D" < * * < ^ '"' D" <
* *(5< ('*(5;' ' !' #('
5* < &5 5*+' *0 * =< &5 & ''* <
ZZ?< ZFG< ZBO
5* 0 < " 0 = < 5 < '
%(5 ' <FFF 8&
5* ' H * I< ?Z>< ?FF< ?FB 8&< ?O? 88&;
& ' *0 5 ' (* & 5 ' <?OA 8&;
+ & '*0 H>ZOOI< ?Z>< ?OO
5* (<& + '0* ' , * ' X <ZBB;5 '
* < ' '*0 * <
5* + <% ' * <&5 & ''* <ZOZ
5(& < ' <@OB
5(<FF
5(< <>F?
5(* <BGO
5((< &8(' ' 5 ' / (<>BF;
'% : ' * 0 * <?GZ< ?>A;' >FB
5(< BA 8&< F>< >GF< >OB< @A@;' '
*'0 *0 (< BF 88&;' * ' '*0< '
- (<?OA;' &*'* * '*0< @?O;' ' E
'*0< >GF * ' ' !' . &=' <
< '*0 # '
< <@A< FF< ?BF
* < * ' <9(& '*0 5 ;
F>F
(''(<:* ='*0< @FF
& *< >BO
& *< <>BA< >B@< >FF 8&
&=5 '< '*0< Z?Z
0 (< &5' * <?OA
+*'*<0 ' '*0< ' & <?F
+*'*< " 9 * <AG 8&
+*'*< , &* *<?@
' D *(= < = '*0 " 0' <5 ' : '
: 5' *''*0 <FAZ 88&; &='
(' <FA@;5 ' : '<FAZ
5 <0 ' '*0< ?O?< ?OF
' <?FB
(< ' ' '
++ < ' ' HFO@I< [A>; !" X '
' <FZ?' 8&
&* ''< = '*0< FAB; ' D * '"
&5 < ! '*0< F?@
< ' <OFG
: H +I I< F?F; = '*0< [AB; '
5< "
5 < @??< @AB< @Z?< @Z@; + ' '
7 : <OZ?
(< * ' + * <& + ('*0 7 (' '
<OA?
*' <AO<>GG; + & '*0< O@
(D< OG> 8&< OGF< O>>; + & '*0<
; # ' < *
* <AF %88; '7 &*+* '
L (<?G>< ?>A;' &('*0< >F@< ?G>
* & 'H * 5 &5 I< '*05& ' '
'%&* ' <FA@
*' *< &*(& ' '*0< OA [;67 : ' < OOG;
= ' ' / '*0 <F@@;' &* E
('*0< [FO;' F@B< OAB< OF>

*

$% ‹0 ' '*0‹ ?O['
' " 5 'L I‹ ?B@
‹ C ,' ' 5' - + & ‹ ?@[‹
: D ⁋' (' ' 5 ‹ @OZ,' 5(' '
5 ‹ @OZ 8ß;' Z ' !' ! ' '
' ' : ' ‹ >B@;' ' : ' '
' ‹ * & ' ('*0‹ BGG
& ‹ >F@
: ' 'HØ 0 ' ' F'& * ‹ 5 +ß /'
$ ⁋&5 & '*0‹ >B@;' ' 5 ' + ‹
' >FG %8ß‹ >FZ;‹ '' & ' : 5' ' '
%&5 :)‹ >BB' 88ß;' ' 5 '0 "+ & '*0'
>?F>‹ >BF;' ' * '*0' : ' ' '
: ' ‹ 6 ;' '' & ' +*' & ‹ >FB
6‹ ?>G 8ß;' ' !'. * ' * ‹ $
‹ : ' '
+ ‹ ?[F
+ ' ‹ ('*0‹ ?Z? ! '
" # *(‹ O>?‹ O>@
' ‹ -*+ ‹ 0 *00 ' 5 ' '*0' 9* ('
: 5'% & ' ‹ [BA
' ‹ -*+ ‹ ' 5 ' - + " % ‹ [F;'
' 5 ' '"* ‹ [><>ZB 8ß‹ ?@><BG@;'
(' *' * ‹ >ZF‹ ?@?‹ # B;' ' E
* ' : 5' 5 ' ' ‹ >ZB' 8ß;' ' 5 '
5(&5' '"*5 ‹ >@>;' '7*5 '# 0 ‹
>@?;' ' ' ‹ Z[G 8ß‹ ZB@;' ' '
@ &' 0‹ ZB@' 8ß;' ' 5 ' (&& '*' '
" ((‹ A[B;' ' .' ‹ AO?;' E
: ' . &' ' ‹ AOG;'
' 5 ' . ' * + ‹ ' [@@;' &E
* ' : ' ' ' ‹ AO>< [@@;' +' ' & (E
‹>ZB;' '+ * * ' * 0 & ‹ ?@O;'
'0 & ‹ ?B>;' 5 ' 0* ‹ ?B[;' ('"*0‹
ZBB;' 5 ' 0' (& ‹ AGZ;' 5'*0‹ >[G‹ BGB'
' ' H " *'* *' - *I‹ -*+ ‹ 5 '
' & * ‹ C ‹ ?BF' 88ß‹ AOO‹ ZF>;' ' 5 '
' '%&5 ‹ ?FG 8ß;' 5 '&5 & ‹ ?FG‹
?FA;' 5 '+ ‹ ?F>' 88ß‹ A@G' 8ß‹ ZOG;'
' ' 5 ‹ ?FA;' ' (* '0* '
' &* (& '‹ ?FA 8ß;' (++* ' 5 ' '*0'
" ( ))*‹ OA‹ ?FA‹ A@O;' ' '+*' & '*0‹
O@<@?;' ' 5 ' + ‹ & * ' ' & * '
*0' 8 ' ‹ >[?;' 5(&5' '"*5 '
‹ >@@;' ' & (' ' .' ‹ A@>;'
' ' ‹ Z@>;' ' &' 0‹ ZF><‹ ZFA'
! ' :⁋' 5'*0‹ @?;' BBA‹ ZF[‹ BGF'
‹ ' ' ‹ @OA 8ß;' &('*0‹ @O@;'
'* '*0‹ ' . *‹ 5 ' ' ' ' 5 '
*(‹ , (*‹ 4 (⁋ ' *'
‹ ‹ Z?Z
'‹ &8(' ' '0* *' '*0' * ‹
[B@;' &*('*0‹ *B@;' '7 '
‹ & * ß 5 +‹ ' $ ⁋ ' ' 5 * '
' &5 & ‹ >BO;' ' * ' : 5' 5 '
+ ‹ >BO' 88‹ >FZ;' '' &' : 5'
! %&5 :)' ' ' : ' ‹ >BB 88;' '
5 '0 "+ & '*0'>?F><>BF;'+*' & '*0‹>FB'
88‹ ?GZ‹ ?GF' 88ß;' '+* * '*0' 5 '
% ' * 5 '+ ‹ >F>;' *0' ‹ ?GF‹
?>A;' ' !'. * ' * '
" L= " F' = * '*0‹ [?F;' [AZ‹
[AB;'= ; *0‹L& ' ' *''; & a * 5'
‹ >B[' 8ß‹ >F>;' + " ! '
>B@;' *& & '*0‹ >B>< >FB

' ‹ # '*0‹ ' A '
=‹ [?[
(‹ ((‹ .! ' ' 5 ' 5(&5‹
OZA‹ O[[';' + &(' * ‹ @[88ß;' * E
* ' *0' & ‹ @O 8ß;' 0 & ‹ ??[';'
7 : ' ' ((‹ [FZ‹ OZA‹ OZ[' 88ß‹ O[['
88ß;' '' ' ((‹ @ZZ;' '*0' ((
OZO;' @A@‹ @Z?
&5 ‹ / ' +' ' ‹ ?A[';' &* & "
'*0' H>Z@ZI‹ ?AF‹ ?Z><‹ ?Z[‹ ?ZO' ! '
?;' 5*+ &*0‹ B?;' 5*+' *0‹ ?A['
% &5‹ ?G><‹ ?>A'
))' (= ‹ ' * =

()‹ ?>?
' ‹ >BA<>BO<>FF;' % * ‹ OG<>F@' 8ß‹
?GF;' " &*(& " ' +*' & ‹ >FB;'
++ ‹ ?GG<?G@' 8ß;' * : ‹ ?GF;' 5*+ &‹
>B@;' '% *
' ‹ ' $ ' '
" ⁋ ‹ A?G‹ [BO'
" ⁋ *‹ AF'
' & ‹ ' ‹ Z>A'
' & ‹ ' ‹ ' - *= ‹ " *0'
' & ‹ [B? 8ß;' &5 '*‹ [FZ;' * ' ' ‹
[FG' 8ß;' * : ' ‹ [?Z‹ [FO;' 5 'ⅼJ * W'
‹ (' ' : 5' - ' ‹ [F>;' *& "
&* * ' ‹ [FZ;' * ' ‹ [F@‹ OFO;'
&* & "&*(' ‹ [FB;' + * * '*0‹
' ' / ‹ $+*+ '
' & ‹ &8(' . & ‹ A?A'
' (' .' && %‹ &* '*0' : * = '*0‹ @O?'
' ('# C (‹ ('*0‹ @[['
' '"* '‹ 6 H ' - ! !"'*0‹ @?>'
' * ‹ ?[F
'' ‹ *)*‹ 5(‹ @O?‹ @OB' 88ß;'
& & " : * =' *0‹ @OF' 8ß;' 5 ' ' * ‹
@OB' 8ß;' 5 ' ' ' ! ' ' '@OF'
'' *' ‹ * ' ‹ [@><[@Z;' ' : ‹ [F[';'
&* ('*0‹ [FO
'' ‹ , ' * ‹ %+ (" . & & ‹ @F['
'"* * ‹ @BG;' '*0‹
" # ‹ ?GG‹ ?>B
'* ‹&* ('*0‹ A@B;&* ('*0‹ ' 5 ' ‹
* (‹ (= '*0' ' ‹ -5 ' +' ;'5* ('
*0‹ ?F?‹ AZG‹ A[?‹ AO@;' ' 5 ' ‹
5 ' ' ‹ ‹ ‹ 7*5 ' / ‹
* ('X ‹ -5 ' +' '
'* ‹ * '‹ ?F>'
" ⁋ *' ‹ >FF' 8ß‹ ?>>< ?>Z'
" %(‹ Z@'
") & ‹ ?GG'
' . (&& ‹ ??
' ' ' *(‹ ?ZF'
‹ " *'0*' ‹&* '*0' * + '
*0' " * ‹ O@'
‹ @>;' 0 '*0‹ >FB'
‹ ‹ ?[Z 8ß‹ ?[@ 8ß;' *& '
*0‹ ?[B‹ ?O> 8ß;' & ' * -*' ' '
&* '+ & + ' ‹ ?OO;' 5*+ '*0‹ ?O>'
8ß‹ ?OO' 8‹;' ' &= ‹ * '
‹ '*0‹ OGG'
*‹ : * ='*0‹ @?F‹ @[O'
‹ ‹ ?ZB;' '" ' &'
‹ @@>

>GOB

*

< A? 88< 44 88< FB; , * < ZZ;
*('*0< O>;&* 0' & : 57*5 XX <
Z?< Z[8< [[,; & (< [[< >>B;*
+*' & &8(* (# *< Z[
8<; +* &' *0< [[,; &
(&5 5*+, * < [O 8<; *
5 (&& * < [B 8<; '' & < O>;% + * *
5 ' < >ZF;+*' & &8(E
* *0 5 % ^; @A; ' *0 5 < *
- < @[[< @OZ; Z>< [F< @G< @Z< FO< A@B<
ZZ@< Z[?< @[Z< @OB< @@Z
&* < '' '* *0 # ' < [O< A@@;
: 0 * * 5 - + "
% < [B 8<; ?@?; *0 + & < [F<
OO; : . '* & 5
- + & < O@; 5 *0< @>
&* < 5 ?[8<
&* < . ' ++*' # < (= *0 # ' < @Z<
@OA< @OB; *0< @@A
&* < , L))*' < '* *0 # ' <
0< F[; C ' < 6; ((/ < <
AA; && * *0< ZO; >>B
&* < ,' '))* < '* *0 # ' < [O< @>;
,, & *0 % * < [F; E
(< OG; 5 ' < @[[< @OA
&* < , '))*< ?>?
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++ : +*' & < OA 8< @G %88< B@@ 8<;
(++* * (*0 9* & *' +' <
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5 , %&5 < ?FB; 5 ' < @[[<
@OA; 5 *0< @? 8<; @Z
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@Z; 5 % : * 0 * < >FB<
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+*' & *0< [O; 5 *0< [[
&* < # &*< *0 , * < ZZ ;
& + (- < Z[
&* < # *' < '* *0 # ' < + *
& * * < ?Z 8< AA< ZZ 8<<
[[; * < ?B; & + # ' < ?Z; 0* &
*' < ?[; (*0< (
/ L < A? 8< ZZ L 6< FB; #* $
& < ZG; 5 &8(* < Z[8<; '' *
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ZO< [[; ?O< [F
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*0< ?Z; ?[
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&* < ' < (&5 * *0 ' <
A@[< A@@< AB> 8<

* 5 < [FO; %+ < OA[< OAF< OO><
OFO; , (< OAB; H . ! *0<
[F[; = *0< % (
(' < < C < ?ZB< ?[Z 8< ?O>< ?O@;
+* * *0 (* & * < ?OG;
&*'* * '* < @?O
' " 5 < & *0<
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* < [@B
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* *' . < (& * < @O?< @@G;
+ *0 * *0 5 * & - (< @[B; : * =
*0< @O[8<; *0< @@A
< C - & >GF< AG@< A?A;
+ *0< OBF; 5*+ *0< AG@<
A?A
' < % < , - & *0 < 5
5(&5 (< [FF 8<; 5 *0< [FF;
& * 5*(* *0< [FF< OG? 8<
OGZ 8< O>G< O>B; OGA
' / # * * =5< , - & *0
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(< OG>; &* &* 0 & <
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&5 < OG[< OG@< OGF< O>?; 5
* ! OG@; 5 & < OGA<
OG@ 8<
' H ' I< + & *0 -*'* =<
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OGB
' * ' 5< * * *0 * ' < <
OGG< OG?< OG[
' < * : *0< OGF<O>?<O>Z< O?A; ' <
- & + ' *0< O>? 88< O>B; # *'* <
O?A< O?[88<; &*'* < O>? 8<;
O?B; *0< O??; + * & *0< OGZ< O>>;
, - & *0< O>[< O>B 8< O??< O?Z<
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* < 9(& * "* < @??< @?F< @A[<
@A@; *00 & * <
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*' ' < < ?ZB< ?O[< OGZ< OGF< O>> 8<
O>Z< O>@< O?B;)< & * < O>@ 88<
*'5 < + & + ' *0< OGZ 8< OG@< O>Z
88<; (* : 5 , ' & < O>G; 5 *'$
5 5 * &' < O>O; + & *0<
'< < "* '
'=5 < < OGZ< O>F

ZFB< [GG< [GA 88&; -) ' $ [GG<[GZ; *0 5 : * =<
[G[8&; 5 * *(' 5 & "&* E
&' (* < ZFG ! ZF?< ZFA * ?; 5
0*''* : <ZF? 8&; 0' & * 5 &5 <
Z[Z< Z[B< [G[L8&; " *5 < ZO [<ZF[;
@Z< ?@@< ?BZ< Z[> ZB[
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= 5 < '' *0< 5*+*0 &5 <
&5 & ''* < 0' (& *0< ZZO;
++ * < *< Z[A; < Z[Z; &*
: 5 7*5 *0 , ' < Z[Z 88&< Z[F; +*' &
(" &5 < ZOB 8&< Z@A 8&
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' H ' I< [>@
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*0 * * 5 * : % *+*'=< [FF 8&;
* & 0* +*' & < OGG; ' :
(<OGO; 0*((<?ZF; 5 *0<
OGG; OG> 88&< OG[
* ' < , - & *0 ' < O>B \
* ' ' * '< + & *0 , ' &
H / ' &AI< O>G 88&; 5 ' * < O>G 8&
* ' '< O>?< O>Z< O?Z; 5* (*0< O?F
)* < @ZZ
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*' < (&5 0 % * < ?G@ 8&
* =< Z>Z< Z>B< ZBO< [O>; ' 6HBO@I<
[AG; + ' H>A>BI< Z>F 88&; H>A??I<
Z?Z 8&; / *(5*' & % (
$ *0 H>A>BI< Z>F; % (*0 H>A??I< ZB><
O@B< OFF; *0 * < ZAF< Z@Z;
7 : < OZG< O[A; # < [O>; *0<
ZZF 8]' [[O< [[@ ! >< [O>; &5 5*+
*0< # ' * < '' < %* *+ < 5* <
a*(&5 < ' , 5*(*0< ZZ@
* =< " L (0 ' < (= *0< C;
< ZZ@<[@F; * . & <
A@Z; +* * +*' & < Z[@ 8&< ZOB<
Z@><Z@@; <Z@F; 5 * <ZZ@
* =< " &5 < (= *0< [FO
* = + < ' < [?O
* = 5 < ZO'< Z@F< ZBO< @ZZ< BGO; %&*
< [[Z [OO; + * < O@G;
6 0< @BZ
+ < AZB< A@>< @A?< BG[; &* * *0<
: / ' 5 (= *0 " (E
(< ABO 6
< 5 *0< @ZO
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O>@< O?G< O?F
a) < ?OZ
a ' < BF<>AZ<A@@; &*(*0< / *'' <
&*(*0 1
a ' < < ?ZB< ?[G< ?[?; &* 8(
5 (* < ?[O
a 5< 5 < [OB
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a *9 *< BG
a*0' < ?G?
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a* * < OAO
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ZZF 8&
a(<>FG &* 8('%: * 0 <
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>F? 88&< >F@< >FF< ?GZ< ?>A; '' &
+*' & < >F[< ?GG< ?>G 88&
& = '' & *0 % :
* 0 * < ?>A
a(&5< >ZG<>B[;*+ : +* & <>F>
8&< ?GG; *0 % : * 0 * <
>F?<>FZ<?GA 8&< ?>A; : 5< ?G> 8&;
'' & +*' & < >BF< >F? 88&< >F@<
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(< >BF 8&< >F? 88&< ?G>< ?GA<
?>> 8< (+ < >FZ< >FO<
?G> 8&; *0 ('' & < ?GA;
L *0 H>A[>I< >F?; H>ZZZI< ?G?; &* 0' &
: 5%*5 :)<?GG 8&; &8(* < >FF 8&<
?GZ; *' (* < >F?<>FO 8&< ?>G 8&;
0* < < ?>G 8&; , * (& '< >F@;
*0 H>ABFI< >FO; + & *0 H>Z@BI<
?GB 8&; '= (< >F>< ?GA; (*E
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a a < ?A>< ?A[
a : < ('0 *0< * (+ *0< ?A>< ?ZG
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